BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of the Application of Pacific Gas and Electric Company for Approval of its Electric Vehicle Infrastructure and Education Program (U39E).	Application 15-02-009 (Filed February 9, 2015)

OPENING BRIEF OF CHARGEPOINT, INC.

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SUMMARY OF CHARGEPOINT'S RECOMMENDATIONS

- PG&E's Phase 1 program should comply with the September 4, 2015 Joint Assigned Commissioner and Administrative Law Judges' Scoping Memo and Ruling. Specifically:
  - Scope limited to 2,500 Level 2 EV charging stations (or up to 5,000 ports if dual port charging stations)
  - Scope limited to 10 DC fast chargers
  - Two year program

- The program should focus on the underserved customer segments of multi-unit dwellings (MUDs) and disadvantaged communities. Specifically:
  - Deploy a minimum of 50 percent of Level 2 EVSE at MUD sites

- The total budget for the Phase 1 program should not exceed $87.4 million. This is the budget originally proposed for PG&E's "compliant" program. Costs should be recovered via a one-way balancing account. PG&E may use any budget remaining after deployment of the 2,510 authorized EVSE and DCFC for additional deployment consistent with these recommendations and, if relevant, for continued deployment during the transition period.

- PG&E may be authorized to install up to 10 DCFC, subject to reasonable conditions:
  - Siting coordination with other programs and consistent with applicable state policies and priorities.
  - No DCFC sited at MUDs
  - Limit revenue requirement to average cost under CEC program
  - Site owner free to choose DCFC and network service provider and equipment from pre-qualified list, site host ownership and control of DCFC without "customer of record" or other constraints.
  - PG&E provides make ready, site host pays for DCFC, O&M.
  - Site owner required to contract for maintenance and provide a load management plan.

- The program will offer an open and unconstrained process for prequalification and customer selection of equipment and network services.
  - Ongoing prequalification to ensure that new entrants and new technologies can participate.
  - No artificial constraints (such as separating procurement of EVSE, services) on pre-qualification RFI process.
  - No restrictions on equipment offered, as long as it meets program specifications for functionality, safety etc. Customers free to purchase what they want and need.
  - Both utilities and vendors can talk to customers. Market-neutral customer engagement rule applies.

- At all sites, the site host rather than a third party service provider will be PG&E's customer of record.

- The site host may determine the rate structure and amount charged to drivers for EV charging services, subject to the obligation to implement a load management plan reflecting best practices.
    - A list of "best practices" will provide guidance and transparency.

- At all sites, PG&E will provide and ratebase utility-side infrastructure (make ready) up to but not including the EVSE.
    - Site host will pay for all of EVSE or receive full or partial rebate, depending on market segment and need.
    - Site host will be required to contract for network services and maintenance from qualified providers.

- If (and only if) the Commission deems utility ownership of EVSE is necessary, then utility ownership should be strictly limited to the underserved markets of MUDs and low-income communities, and only allowed to "fill gaps" in these underserved customer segments.

- Site hosts should make a meaningful contribution to the project as a condition of participation in the Phase 1 program.
    - <u>Workplace/commercial/public Level 2 sites</u>
        - Site host pays full cost of EVSE, network services and maintenance at workplace/commercial/public sites (except in disadvantaged communities). Commission will study response and add rebates if needed in Phase 2.
        - Workplace, commercial and other public non-residential locations that are located inside disadvantaged communities receive a rebate equal to a reasonable percentage of the average cost of basic L2 EVSE, network services, and maintenance. Customer may use the rebate to purchase any pre-qualified EVSE and services directly from providers.
    - <u>MUD Level 2 sites</u>
        - MUD customers (except in disadvantaged communities) receive a 50 percent rebate to purchase basic EVSE, network services, and maintenance, with the conditions for rebates outlined above.
        - MUD customers in disadvantaged communities receive a 100 percent rebate to purchase EVSE, network services, and maintenance, with the conditions for rebates outlined above.
    - <u>DCFC sites</u>
        - All DCFC customers receive in-kind make ready facilities only. No rebate. Customer is required to pay the full cost of pre-qualified DCFC, network services, and maintenance.

- The program should be overseen by a Program Advisory Council that includes representatives from local and state government (including Energy Division), industry, labor and other stakeholder participants, ratepayer and environmental advocates, and representatives of disadvantaged communities.

- No Non-Market Participant subgroup

- If the Commission has failed to release a Phase 2 decision before the close of Phase 1, PG&E may file an advice letter to extend Phase 1 by a period of up to one year, with funding limited to the allocated $87.4 million Phase 1 budget.

- Disadvantaged communities shall be defined as the top quartile of "Disadvantaged Communities" identified by CalEnviroScreen 2.0 on a PG&E service territory basis. For locations within eligible disadvantaged communities, a full waiver of customer contribution to costs shall be provided only to MUDs, not other customer segments.
  - DCFC should not count for DAC goal (no "co-benefits)

- PG&E's site selection criteria will coordinate with and leverage PG&E's distribution resources plan ("DRP") and related programs, including PG&E's DRP Integration Capacity Analysis, for integrating distributed energy resources, including EVs, onto PG&E's grid at optimal locations and to maximize grid benefits.

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OPENING BRIEF OF CHARGEPOINT, INC.

In accordance with Rule 13.11 of the California Public Utilities Commission ("Commission") Rules of Practice and Procedure and Administrative Law Judge Farrar's instruction, ChargePoint, Inc. ("ChargePoint") submits this opening brief regarding the Pacific Gas and Electric Company ("PG&E") application for approval of its Electric Vehicle Infrastructure and Education Program.

As discussed below, ChargePoint recommends that the Commission authorize PG&E to establish a Phase 1 electric vehicle ("EV") infrastructure program, with modifications to improve the Phase 1 program design and ensure that the program is cost effective, focuses utility investment where it is needed most, and provides a solid, scalable foundation for future program expansion to meet the State of California's long term transportation electrification goals.

I. INTRODUCTION

A. Introduction

ChargePoint appreciates the opportunity to participate in this proceeding. It comes at an important time – new EVs are appearing on the market, EV adoption in Northern California is proceeding at record pace, and companies like ours are creating new and innovative EV charging products and services to meet the needs of drivers, hosts, and grid integration.

We have learned by participating in this proceeding that the parties have a strong foundation in common objectives. Most agree that a PG&E EV infrastructure program is necessary, and that if properly designed can contribute to expanding EV charging infrastructure to serve the growing number of EV drivers in Northern and Central California. There is also broad agreement that as EV adoption expands in California and across the country, we need to provide EV charging services in a way that benefits rather than burdens the electric grid. These are common goals, and not issues of dispute in this case.

The question before the Commission here is *how* best to structure PG&E's program so that it accomplishes these common objectives efficiently, cost-effectively, and without undermining competition and incentives for private investment. Since this is a phased program, another closely related question is how to create a Phase 1 program that is scalable – one that can serve as a platform for future program expansion. That is what we discuss in this brief.

While there is variation in the details of parties' recommendations, there are basically two approaches offered in this proceeding. PG&E and a group of supporting parties offer a Phase 1 proposal that is based on utility procurement, ownership and control of EV charging equipment and services. In addition to owning all of the customer-side EV chargers, PG&E would largely take over the existing role of the site host (the employer, commercial site owner or landlord) in determining what equipment is deployed, how it is used, and how much drivers pay for EV charging.

Opposing parties, including ratepayer advocates and representatives of low-income communities, the EV charging and tech industries, site hosts, and distributed energy providers, support an alternative model. This alternative approach would focus PG&E's efforts and ratepayer funded investment on the rapid deployment of ratepayer-funded utility-side make ready facilities throughout PG&E's service area, leaving the selection of equipment, network services, and on-site use and management of the EV charger in the hands of the site owner. The program would provide more attention and resources to overcoming barriers to deployment of EV charging in multi-unit dwellings ("MUDs") and disadvantaged communities, while asking for a greater matching contribution to cost of the charging station from the commercial site owners that can afford to do so.

For the reasons discussed in more detail below, ChargePoint believes the alternative described above is the right choice for PG&E's Phase 1 program. It is much simpler in design, which will enable more rapid deployment of infrastructure. It will deploy more smart charging infrastructure for less money, will preserve competition, innovation and incentives for private investment, and provide a scalable foundation to build upon in Phase 2.

B. ChargePoint's Interest in this Proceeding.

ChargePoint is a market leader in EV charging stations and network services provider and operates an innovative and intelligent software platform that is used by site hosts and drivers throughout the state of California and elsewhere.[1] ChargePoint has participated actively in the Commission's EV proceedings since 2009, and was a party to the settlements that were the foundation of decisions in the SCE and SDG&E proceedings.[2] ChargePoint has participated in this proceeding by offering three witnesses, including testimony by an expert, Dr. Cicchetti, on issues of competition and market impacts.

ChargePoint and numerous other companies that sell EV charging stations and provide EVSE and related services to customers in PG&E's territory have intervened and testified individually or through their trade association in this proceeding because the stakes are high. PG&E's northern and central California service territory is a center for growth in EV adoption and private investment in EVSE, network services, and other forms of innovative communication and energy management technologies. The Commission's decision will address key questions of customer choice in EVSE and network EV charging, and the role of the site host as provider of EV charging services. It will address how to cost-effectively tailor an EV infrastructure program to target underserved market segments while preserving incentives for private investment in successful market segments. Together with like-minded intervenors, ChargePoint supports adopting a program in which PG&E would strategically enable, rather than take over, expansion of EV charging equipment and services. We view this as the right model at this time for northern and central California.

C. Procedural History

On December 22, 2014 the Commission issued Decision ("D.") 14-12-079, the Phase 1 Decision Establishing Policy to Expand the Utilities' Role in Development of Electric Vehicle Infrastructure. The decision took the "first step in…efforts to adopt rules that will encourage the expansion of electric vehicle infrastructure and the widespread deployment and use of plug-in electric vehicles ("PEV")."[3] The decision reaffirmed the Commission's intention to apply the "balancing test" adopted previously in Decision 11-07-029, which requires that "the benefits of utility ownership of PEV charging infrastructure must be balanced against the competitive limitation that may result from that ownership."[4]

[1] ChargePoint's business model and activities are described in Exh.63, pp.2-7.
[2] See D.16-01-045; D.16-01-023.
[3] D.14-12-079, p.1
[4] Id., p.5.

The Commission explained that every utility proposal would be examined "on a case by case basis,"[5] and that it would take a "detailed, tailored approach to assessing any proposed utility program based upon the facts of specific requests, the likely competitive impact on the market segment targeted, and whether any anticompetitive impacts can be prevented or adequately mitigated through the exercise of existing rules or conditions." This detailed examination would entail a factual inquiry, including at a minimum, examination of the nature of the program, the affected competitive market, unfair utility advantages, and whether rules, conditions or regulatory conditions are needed to effectively mitigate anticompetitive impacts or unfair utility advantages.[6]

On February 9, 2015, PG&E filed Application 15-02-009, in which PG&E proposed to deploy, own and manage 25,000 Level 2 EV charging stations and 100 DC Fast Chargers ("DCFCs").[7] The estimated capital cost of PG&E's proposal was $551 million and operating expenses were $103 million.[8]

On September 4, 2015, the Assigned Commissioner and Assigned Administrative Law Judges issued a Scoping Memo and Ruling ("Ruling" or "Scoping Memo"). The Ruling found that PG&E's application did not include the information necessary to determine whether the criteria enunciated in D.14-12-079 have been met. The Ruling continued:

> Nor does PG&E's proposed program provide an opportunity for the Commission to collect and evaluate data along the way to determine program effectiveness and allow for any modifications. These elements are necessary when considering a program of such magnitude, especially when combined with the need to evaluate ratepayer costs and benefits, and to protect against unfair competition. We find that a more measured approach to utility ownership in PG&E's service territory is warranted. Thus, we will consider PG&E's application after it is supplemented to present a more phased deployment approach.[9]

The Ruling directed PG&E to file, no later than October 12, 2015, a supplement to its application setting forth an initial phase of EV charging station deployment that was to be

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[5] Id.
[6] Id., p.8-9.
[7] Exh.2, p.3
[8] Exh.2, p.5.
[9] Ruling, p.7.

limited to "a maximum of 10% of the total originally proposed number of charging stations, to be deployed over no more than 24 months."[10]

On October 12, 2015, PG&E served supplemental testimony that included one program proposal labeled the "Phase 1 Compliant Proposal Pursuant to September 4, 2015 Scoping Memo and Ruling."[11] PG&E described this proposal as "strictly" complying with the Ruling, even though the DCFC portion of the program was reduced to 50% of the original proposal instead of the required 10%. PG&E also defiantly proposed an additional non-compliant program, which PG&E called the "Phase 1 Enhanced Proposal." The enhanced proposal would deploy up to 7,530 EV charging stations over 36 months from the date of first construction.[12]

On October 23, 2015, several parties filed a motion to strike those portions of PG&E's supplemental testimony that referenced PG&E's "enhanced" proposal, on the grounds that PG&E's "enhanced proposal" is beyond the scope of this proceeding and is not responsive to the Scoping Memo. PG&E argued that the procedural arguments against the "enhanced proposal" should be heard in the hearing process.[13] The ALJ issued an email ruling denying the motion.

Intervenor testimony was served on November 30, 2015, and rebuttal testimony on December 21, 2015. Evidentiary hearings were originally scheduled to commence on February 8, 2016. However, just one week before the commencement of hearings, PG&E requested that the hearings be taken off calendar so that PG&E could explore settlement negotiations.

Parties engaged in settlement discussions, but PG&E did not negotiate a settlement with all or even a majority of the parties that had filed substantive testimony contesting and recommending substantive changes in the PG&E proposal. Instead, on March 21, 2016, PG&E submitted further revisions to the "enhanced proposal" under the guise of a Joint Motion for Adoption of a Settlement. This so-called "settlement" was, in fact, untimely late-filed joint testimony, filed without leave of the Commission by PG&E and a group of parties, all but one of which were either supporters of or unopposed to PG&E's enhanced program.[14]

On April 1, 2016, seven active parties, the Office of Ratepayer Advocates, The Utility Reform Network, Electric Vehicle Charging Association, TechNet, Joint Minority Parties, Vote

[10] Id.
[11] Exh.3, p.4.
[12] Exh.3, p.10.
[13] PG&E Response to Motion to Strike, p.2.
[14] Exh.1, Settlement.

Solar and ChargePoint, filed a Response opposing the Joint Motion for Adoption of a Settlement ("Response"). By order of the ALJ, on April 12, parties opposed to the PG&E "settlement" filed comments identifying issues of fact to be addressed in hearings, and PG&E and its supporters filed a joint response answering a number of questions about the "settlement". Evidentiary hearings were held the week of April 25, 2016.

II. BURDEN OF PROOF AND LEGAL STANDARDS

A. PG&E has the burden of affirmatively establishing the reasonableness of all aspects of its application.

PG&E proposes that the Commission authorize the expenditure of $160 million for the development of a new utility EV infrastructure program that includes program investments and activities outside the utility's traditional role of providing electric and gas services.[15]

Pursuant to section 451 of the California Public Utilities Code, all rates and charges collected by a public utility must be "just and reasonable." A public utility may not change any rate "except upon a showing before the commission and a finding by the commission that the new rate is justified,"[16] and must demonstrate with admissible evidence that the costs which it seeks to include in revenue requirement are reasonable and prudent. The Commission is charged with the responsibility of ensuring that all rates demanded or received by a public utility are just and reasonable.[17]

PG&E has the burden of proving that it is entitled to the relief sought in this proceeding, and PG&E has the burden of affirmatively establishing the reasonableness of all aspects of its application.[18] "Intervenors do not have the burden of proving the unreasonableness of [the utility's] showing."[19] PG&E cannot shift this burden to other parties.

The standard of proof PG&E must meet is that of a preponderance of evidence. This standard requires that "in terms of probability of truth" the evidence provided by PG&E, "when

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[15] Exh.1, Settlement p.4.
[16] Pub. Util. Code § 454(a).
[17] Cal. Const., art. XII, § 6; also see, *Monterey Peninsula Water Management Dist. v. Public Utilities Com*. (2016) 62 Cal. 4th 693, 700.
[18] See generally, *Application of Southern California Edison Company for Authority to, Among Other Things, Increase Its Authorized Revenues For Electric Service in 2009, And to Reflect That Increase In Rates*, D.09-03-025, p.8 (March 12, 2009) and decisions cited therein.
[19] *Southern California Edison Test Year 2006 General Rate Application*, D.06-05-016, p.7.

weighed with that opposed to it, has more convincing force and the greater probability of truth'"[20]

In the course of this proceeding PG&E has presented four different versions of its EV charging infrastructure program.[21] Assuming that the most recent version, submitted on March 21, 2016 is PG&E's current proposal, PG&E bears the burden of affirmatively establishing, by a preponderance of the evidence, the reasonableness of all aspects of that proposal and that the resulting costs and rates are just and reasonable. It is not sufficient for PG&E to merely allege that version of its proposal is less onerous, less costly or less unlawful than one or more previous versions. Nor is it sufficient for PG&E to allege that the general benefits of electric vehicles are alone sufficient to support the expenditure of ratepayer funds on a program that is not justifiable on its own terms as compared to alternatives described and supported on the record. Nor is it sufficient for PG&E to allege that elements of its proposal are similar to a program that is being implemented by another utility, where the facts and evidence of the other utility's program are not part of this evidentiary record.

In summary, as the Commission reviews the current version of PG&E's proposal and compares it to recommendations offered by other parties, it must in each instance find that PG&E has proffered affirmative evidence, not mere speculation, adequate to support adoption of each and every element of its proposal. In the absence of such evidence, the application must be denied, or the proposal must be modified to conform strictly to the evidence of record.

B. PG&E has the burden of affirmatively establishing that its proposal meets all of the requirements established in PU Code sections 740.3, 740.8 and the Commission's "balancing test".

Since PG&E is proposing that the Commission approve an EV infrastructure program, PG&E has an obligation under Public Utilities Code section 740.3(c) to establish on the record that will enable the Commission to find that the program is "in the ratepayers' interest" and to ensure that PG&E does not "unfairly compete with nonutility enterprises."[22]

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[20] *In the Matter of the Application of San Diego Gas & Electric Company for a Certificate of Public Convenience and Necessity for the Sunrise Powerlink Transmission Project*, D.08-12-058, citing Witkin, Calif. Evidence, 4th Edition, Vol. 1, 184.

[21] See Exh.2 (original proposal), Exh.3 ("compliant" and "enhanced" proposals), and Exh.1 ("settlement" version of "enhanced" proposal). The Commission has already rejected the original version of PG&E's proposal, per the Ruling. The other versions of PG&E's proposal are still pending before the Commission.

[22] Pub. Util. Code § 740.3(c).

"Ratepayers' interest" is defined in Public Utilities Code section 740.8:

> 740.8. As used in Section 740.3 or 740.12, "interests" of ratepayers, short- or long-term, mean direct benefits that are specific to ratepayers, consistent with both of the following:
> (a) Safer, more reliable, or less costly gas or electrical service, consistent with Section 451, including electrical service that is safer, more reliable, or less costly due to either improved use of the electric system or improved integration of renewable energy generation.
> (b) Any one of the following:
> (1) Improvement in energy efficiency of travel.
> (2) Reduction of health and environmental impacts from air pollution.
> (3) Reduction of greenhouse gas emissions related to electricity and natural gas production and use.
> (4) Increased use of alternative fuels.
> (5) Creating high-quality jobs or other economic benefits, including in disadvantaged communities identified pursuant to Section 39711 of the Health and Safety Code.

Since PG&E is proposing utility ownership of PEV charging infrastructure, PG&E also must affirmatively establish that its proposal satisfies the "balancing test" established in Decision 11-07-029 and reaffirmed in Decision 14-12-079, which provides that:

> [T]he benefits of utility ownership of PEV charging infrastructure must be balanced against the competitive limitation that may result from that ownership.[23]

The Commission specified that it will apply this balancing test on a case-specific basis and take a:

> …detailed, tailored approach to assessing any proposed utility program based upon the facts of specific requests, the likely competitive impact on the market segment targeted, and whether any anticompetitive impacts can be prevented or adequately mitigated through the exercise of existing rules or conditions.[24]

Review of each utility application entails a factual inquiry, including, at a minimum, examination of the following elements:

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[23] *Application of San Diego Gas & Electric Co. for Approval of its Electric Vehicle-Grid Integration Pilot Program,* D.14-12-079, p.5.
[24] Id., p.8.

(1) The nature of the proposed utility program and its elements; for example, whether the utility proposes to own or provide charging infrastructure, billing services, metering, or customer information and education.
(2) Examination of the degree to which the market into which the utility program would enter is competitive, and in what level of concentration.
(3) Identification of potential unfair utility advantages, if any.
(4) If the potential for the utility to unfairly compete is identified, the commission will determine if rules, conditions or regulatory protections are needed to effectively mitigate the anticompetitive impacts or unfair advantages held by the utility.[25]

The balancing test "weighs benefits of utility ownership of charging infrastructure against potential competitive limitation" and "the benefits analysis applied in the balancing test will rely heavily on the guidance from Pub. Util. Code § 740.8."[26]

III. STATUS OF PROPOSALS

A. The "settlement" should be summarily rejected because it does not resolve contested issues, nor is it the product of arms-length negotiations.

1. The PG&E "settlement"

The "settlement" consists of summary revisions to PG&E's "enhanced" proposal, submitted on March 21, 2016 along with the Joint Motion. This appears to be the version of its proposal that PG&E currently supports, although the majority of active parties in this proceeding dispute that it can accurately be characterized as a settlement.[27] Thus, PG&E's proposal now apparently consists of the original proposal (as described in Exhibit 2) as revised by PG&E's non-compliant "enhanced" scope and duration (as described in Exhibit 3) plus the summary changes described in the "settlement" attached to the joint motion. PG&E has not submitted a compliant version of the "settlement" filing.

2. The "settlement" does not resolve contested issues.

The Commission's rules and precedents favor settlements. The purpose of the Rule 12 settlement process is to provide an expeditious resolution of contested issues, so as to avoid the

[25] Id., p.9.
[26] Id.
[27] As discussed in the Response, five of the parties to the "settlement" did not file any intervenor testimony. Seven of the parties to the "settlement" did file intervenor testimony. However, only one of these seven active "Settling Parties" raised any objection to PG&E's proposed program in its intervenor testimony. Many other parties, including ORA, TURN, EVCA, ChargePoint, TechNet, Vote Solar, Green Power Institute, and the Joint Minority Parties, submitted intervenor testimony that vigorously contested many aspects of the PG&E proposal. PG&E did not reach a negotiated settlement with any of these eight parties on any of the material disputed issues raised in their testimony.

lengthier and more resource-intensive process of resolving the contested issues through evidentiary hearings and briefs.[28] If a settlement is merely an agreement among parties that support the underlying proposal and have not raised any material contested issues to be resolved, then that so-called settlement will not have resolved contested issues, narrowed the scope of matters to be adjudicated nor helped to expedite resolution of contested issues in lieu of litigation. In such a circumstance, the "settlement" should be summarily rejected.

The Commission has recognized that there is a difference between a real settlement of contested issues and a proposal offered by a group of aligned parties. For example, in Rulemaking 97-04-011, the utility respondents filed their recommendations in the form of a motion requesting adoption of a settlement. However the Commission summarily rejected the settlement motion, observing that the "all-utility 'settlement' represented a narrow, rather than wide-range, set of interests."[29] Because the "all-utility settlement" did actually not resolve contested issues, the Commission treated the utility respondents' filing as a joint proposal.

The proposed "settlement" submitted in this case has settled nothing. Only one of the so-called "Settling Parties," Marin Clean Energy, had raised any objections to PG&E's proposal. And while MCE has raised concerns and recommendations regarding certain aspects of the PG&E program, only a subset of uncontroversial concerns and recommendations related to the specific interactions with CCAs appear to have been addressed by the "settlement." There are many important contested issues in this case, but the "settlement" does not resolve them. The "settlement" does not resolve issues regarding the number of charging stations or the budget. The "settlement" does not resolve the question of whether PG&E has satisfied its affirmative obligation under Public Utilities Code section 740.3 and the Commission's balancing test to ensure that a proposal for utility ownership of EV charging infrastructure does not result in anticompetitive impacts on market participants. And the settlement resolves none of the many program design issues and recommendations presented in the testimony of intervening parties, except for the narrow CCA questions uniquely raised in MCE's testimony.

PG&E's "settlement," like the one rejected by Decision 97-12-088, represents a very narrow range of interests among parties who are on record as supporting PG&E's proposed

[28] For example, see *Golden State Water Company,* D.10-06-031, p.12.
[29] *Opinion Adopting Standards of Conduct Governing Relationships Between Utilities and their Affiliates,* D.97-12-088, p.5, fn.2 (77 CPUC 2d 422, 554).

program. As in Decision 97-12-088, PG&E's "settlement" should be received as joint testimony, and nothing more.

3. The "settlement" is not the product of arms-length negotiations.

A threshold consideration in assessing whether a settlement may be considered reasonable, consistent with law, and in the public interest, is whether the settlement is the product of arms-length negotiations between the parties. PG&E's proposed "settlement" in this case does not meet this foundational requirement, because its recommended disposition of disputed issues does not reflect negotiation or compromise between opposing parties. PG&E's so-called negotiated agreement between itself and parties that have supported its application throughout this proceeding is not at "arms-length," and cannot be called a "negotiated agreement" except with respect to that part of the "settlement" involving MCE.

Arms-length negotiations involve diverse parties that have opposing positions on disputed issues, and that engage in discussions that involve concessions and compromise on their litigation positions in order to reach agreement.[30] For example, in Decision 13-05-011 (adopting a rate case settlement) the Commission focused on diversity of interests and compromise between parties with disparate positions in the case:

> Each of the proposals put forth in the Settlement reflect compromises made by the Settling Parties from their competing litigation positions. Each resolved issue put forth in the Settlement is reasonable in light of the whole record, because the Settling Parties fairly reflect the affected interests, these parties actively participated in this proceeding, and the proposals put forth in the Settlement fairly and reasonably resolve the issues raised by the parties. The Settling Parties are experienced in public utility litigation, and the Settlement is the result of extensive and vigorous negotiations, including Commission-assisted mediation.[31]

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[30] See, e.g. *Order Instituting Rulemaking on the Commission's Own Motion to improve distribution level interconnection rules and regulations for certain classes of electric generators and electric storage resources,* D.12-09-018, Attachment A, p.10 (Settlement parties constitute "a diverse group of IOU, ratepayer, distributed generation advocate, environmental and developer interests" that advocated positions "based on rigorous analysis and technical support" and made "concessions related to their initial positions on the issues of concern to them in order to reach agreement."); *Joint Application of Southern California Edison Company and the City of Long Beach for Approval of an Infrastructure and Rate Proposal for Maritime Entities in the Port of Long Beach,* D.14-03-007, p.20 (Settlement reflects and incorporates "numerous and significant concessions made by each of the active parties not only to remove opposition to, but also to gain support for, this proposal").

[31] *In the matter of the Application of the Golden State Water Company for an order authorizing it to increase rates for water service,* D.13-05-011, p.47.

As Decision 13-05-011 illustrates, in considering whether a proposed settlement is real and potentially in the public interest, it matters whether significant concessions have been made among active parties, whether the sponsors of the settlement represent the affected parties and whether the settlement reasonably resolves contested issues raised by the parties. Not every participant in an arms-length settlement negotiation need be adverse to every other party. But in order to have an arms-length negotiation, there must be parties at the table that have submitted testimony identifying disputed issues, and there must be evidence of meaningful compromise between parties on the issues they have raised. In the case of PG&E's proposed "settlement", there is no evidence of negotiation or compromise on disputed issues, except for issues raised in the testimony of Marin Clean Energy.

As the "settlement" did not involve arms-length negotiations except between PG&E and MCE as to limited CCA issues, it does not facially meet the Commission's definition of a real settlement agreement. The "arms-length negotiations" requirement would be meaningless if disputed issues in a utility application proceeding can be considered "negotiated" and "settled" without participation by the active parties who have raised contested issues. Further, the "settlement" was submitted after the deadline for submitting testimony. As discussed in the Response, it appears that when PG&E failed to reach a real settlement of disputed issues except with one party, PG&E decided to offer its own revised version of the proposal and call it a "settlement."

For the reasons discussed above and in the Response, the Commission should find that the "settlement" is not a settlement at all except with respect to the resolution of CCA issues between MCE and PG&E. The Commission should not accord the "settlement" the respect it would otherwise be due had PG&E actually settled the case with all or most of the active parties. Doing so would set an extremely bad precedent because it would signal to applicants in future cases that they need not negotiate in good faith with opposing parties, but merely need to add some revisions, re-label their proposal as a "settlement" and obtain the signatures of other parties who agreed with their position in the first place. As in this case, such a stratagem makes a mockery of the settlement process, and should be firmly rejected. Instead, the Commission should consider the "settlement" version of PG&E's proposal a joint recommendation of "settling parties" and consider the alternative recommendations of ChargePoint and the other non-settling parties.

B. The Commission should adopt ChargePoint's recommended adjustments to PG&E's proposal.

ChargePoint's opening testimony addressed the defects of PG&E's "enhanced" proposal and recommended revisions to the "compliant" PG&E proposal. ChargePoint continues to support these recommended revisions to the PG&E proposal, with some minor adjustments reflecting PG&E's revision of its proposal in the "settlement" and consideration of recommendations of other parties. In accordance with the Commission rules, we summarize ChargePoint's recommendations following the Table of Authorities in this brief.

IV. SUMMARY OF RECOMMENDATIONS

The active non-settling parties, including ratepayer advocates (ORA and TURN), low-income and underrepresented communities (Joint Minority Parties), providers of EVSE and related services (EVCA, ChargePoint), site hosts and the tech industry (TechNet), and alternative energy advocates (Vote Solar) are opposed to PG&E's proposal. These parties provided testimony and recommendations generally supporting an alternative approach. The non-settling parties' positions and recommendations are not identical, but for the most part these non-settling parties align with each other very closely on the following important principles and key components of program design:

- PG&E's Phase 1 program should comply with the September 4, 2015 Joint Assigned Commissioner and Administrative Law Judges' Scoping Memo and Ruling.
- The program should focus on the underserved customer segments of multi-unit dwellings (MUDs) and disadvantaged communities.
- The total budget should not exceed $87.4 million (cost of PG&E's "compliant" proposal). Costs should be recovered via a one-way balancing account. PG&E may use any cost savings (budget remaining after deployment of the maximum number of EVSE) for additional deployment consistent with these recommendations and, if relevant, for continued deployment during the transition period.
- The program may include 2,500 Level 2 EV charging stations, and up to 5,000 ports, utilizing dual port charging technology when possible.
- PG&E may install up to 10 DCFC.
- The Phase 1 program will target a minimum of 50% of Level 2 EVSE in MUDs.
- PG&E will establish an open and unconstrained process for site hosts to choose equipment and network services. At all sites, the site host rather than a third party service provider will be PG&E's customer of record.
- The site host may determine the rate structure and amount charged to drivers for EV charging services, subject to the obligation to implement a load management plan reflecting best practices.

- At all sites PG&E may ratebase utility-side infrastructure (make ready) up to but not including the EVSE.
- If (and only if) the Commission deems utility ownership of EVSE is necessary, then it should be limited to the underserved markets of MUDs and low-income communities.
- Site hosts should make a meaningful contribution to the project as a condition of participation.
- The program should be overseen by a Program Advisory Council that includes representatives from local and state government (including Energy Division), industry, labor and other stakeholder participants, ratepayer and environmental advocates, and representatives of disadvantaged communities.
- If the Commission has failed to release a Phase 2 decision before the close of Phase 1, PG&E may file an advice letter to extend Phase 1 by a period of up to one year, with funding limited to the allocated $87.4 million Phase 1 budget.
- Disadvantaged communities should be defined as the top quartile of "Disadvantaged Communities" identified by CalEnviroScreen 2.0 on a PG&E service territory basis. For locations within eligible disadvantaged communities, a full waiver of customer contribution to costs shall be provided only to MUDs, not other customer segments.
- PG&E's site selection criteria should coordinate with and leverage PG&E's distribution resources plan ("DRP") and related programs, including PG&E's DRP Integration Capacity Analysis, for integrating distributed energy resources, including EVs, onto PG&E's grid at optimal locations and to maximize grid benefits. By ensuring that site hosts have the discretion to control EV charging at the site and to integrate EV charging with other forms of on-site Distributed Energy Resources ("DER") and energy management systems, PG&E's Phase 1 program will help minimize infrastructure costs, enable site hosts to provide necessary grid services and maximize net benefits for all customers in compliance with Public Utilities Code section 769. For clarity, the DRP should be one, but not the only, reference point for identifying potential sites.

The principles and recommendations above would address the primary common concerns of intervenors regarding the current version of PG&E's proposal. ChargePoint joins the non-settling parties identified above in endorsing this approach and encourages the Commission to adopt it. ChargePoint's specific recommendations, set out at the outset of this brief, are consistent with the above listed principles. Each recommendation is discussed in more detail below.

V. PHASE 1 PROGRAM ELEMENTS AND ISSUES

A. PROGRAM SCOPE, DURATION AND COST

1. The Commission should authorize a compliant Phase 1 program.

a. A compliant program scope, duration and budget is consistent with the Commission's Scoping Memo and Ruling.

The Commission should authorize a Phase 1 program that is compliant with the Scoping Memo and Ruling. The Commission clearly instructed PG&E to file a Phase 1 program that is "limited to a maximum of 10% of the total originally-proposed number of charging stations, to be deployed over no more than 24 months."[32] Since PG&E's "originally-proposed number of charging stations" was 25,000 Level 2 EVSE and 100 DCFC, a compliant Phase 1 proposal would permit PG&E to deploy only 2,500Level 2 charging stations and 10 DC fast chargers over a 24-month period. Parties in the case have observed that the Scoping Memo and Ruling did not specify whether the charging stations were single or dual port. ChargePoint would support the Commission adopting an expansive reading of its prior order, which would allow PG&E to deploy up to 5,000 Level 2 ports if all of the Level 2 charging stations were dual port EVSE.

There is no other ambiguity as to the size of the program in the Commission's Scoping Memo and Ruling. The Commission directed PG&E to supplement the record with a program proposal with specific limits on duration and number of EVSE. PG&E decided to also propose an alternative, much larger, 3-year non-compliant program in its supplemental testimony, and then dropped the compliant program altogether in the "settlement" version of its proposal submitted by motion on March 21, 2016.[33] PG&E also ignored the Commission's broader instruction that PG&E should develop a more "measured approach" to utility ownership (discussed in Section V.B below). The Commission should reject PG&E's so-called "enhanced" program because it does not comply with the Commission's clear instructions in the Scoping Memo and Ruling. Utilities have a legal obligation to comply with orders of the Commission. The "enhanced" and other non-compliant proposals do not do so.

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[32] Ruling p.7.

[33] See Settlement Motion, Table 1 "Comparison Between Charge Smart and Save and Prior PG&E Proposals at pp.6-8 (comparing only the original PG&E proposal, the non-compliant "enhanced" proposal and the so-called "settlement" version of the "enhanced" proposal).

b. A compliant program is consistent with the Commission's objective of cost-effective, phased program development.

ChargePoint agrees with the Assigned Commissioner and ALJs' conclusion that the scope and duration authorized in the Scoping Memo and Ruling is appropriate for Phase 1. A two-year deployment phase (plus an additional year for transition if needed) will provide a good initial test of the program design approved in this case, and 2,510 charging stations is a program of significant scope.

There are many unknowns in a new utility program such as this one. PG&E has never before administered an EV infrastructure program, and regardless of which program design the Commission adopts PG&E will certainly encounter administrative challenges and unexpected issues. This program is also unique in that it will operate within a landscape of very rapidly evolving technologies (including EVSE, communications, EVs and DER integration systems), and shifting customer needs and desires. By acknowledging this up front and limiting the duration and scope of the Phase 1 program, the Commission will reduce the risk of bad investments, unanticipated market impacts, and the need for disruptive mid-course corrections.

2. The Commission should authorize a Phase 1 budget of no more than $87.4 million.

PG&E's compliant proposal was based on a budget of $87.4 million.[34] This budget estimate is inflated to the extent that PG&E included 50 DCFC rather than the 10 that were clearly authorized by the Scoping Memo and Ruling.[35] It also includes costs associated with PG&E's owning, maintaining and operating EVSE that will be avoided if the Commission adopts the recommendation of ChargePoint and many other parties in this proceeding to focus on make ready deployment.

Taking this into account, ChargePoint supports a $87.4 million budget cap for the 2 year Phase 1 program, with the understanding that the economies achieved by limiting DCFC costs and adopting a more cost-effective Level 2 program design will cover costs during the transition period, if necessary.

[34] See Exh.3 p.9.
[35] See Ruling, p.7.

B. UTILITY OWNERSHIP

1. PG&E has failed to meet the requirements of PU Code Section 740.3(c) and the balancing test for utility ownership of EVSE.

In order to adopt PG&E's proposal to own and operate EVSE the Commission must determine whether PG&E's proposal would enable it to "unfairly compete with non-utility enterprises" and balance the "benefits of utility ownership" against the "competitive limitation that may result from that ownership."[36] The "balancing test" inquiry prescribed in Decision 14-12-079 requires (at a minimum) examination of the proposal itself, the competitiveness of the market and market concentration, identification of potential unfair utility advantages, if any, and if the potential for the utility to unfairly compete is identified, any rules, conditions or regulatory protections needed to effectively mitigate the anticompetitive impacts or unfair advantages held by the utility.[37] As discussed below, PG&E has failed to meet its affirmative obligation to identify and propose measures to mitigate the impact of its proposal. PG&E has also not offered meaningful evidence or expert testimony refuting the testimony of ChargePoint's expert witness and others regarding the anticompetitive impacts of PG&E's proposal. PG&E has not provided a "more measured approach to utility ownership" as required in Decision 14-12-079.

a. PG&E proposes to provide utility-owned and controlled products and services as a utility participant in an otherwise competitive market.

PG&E proposes to procure, install, own and operate EV charging equipment and network services throughout its service territory in direct competition with non-utility entities.

The PG&E proposal would include 100 DC fast chargers and 7,500 Level 2 ports.[38] The cost of the EVSE and network services, including a rate of return on capital investment, would be entirely paid for by PG&E's ratepayers. Site hosts at certain MUD and commercial sites would pay a nominal "participation payment" of 10-20 percent of the EVSE base cost.[39] All other site hosts would pay nothing for the EVSE, network services, installation and O&M. PG&E plans to offer this free and almost free EVSE and network services along with free utility-side make ready facilities to customers in all market segments except for single family residential customers.[40] PG&E did not consider options for a program design not based on an exclusive

[36] PU Code §740.3(c); D.14-12-079, p.5.
[37] D.14-12-047, p.8.
[38] Exh.1, Settlement p.4.
[39] Id. p.6.
[40] Id. p.4; Tr.Vol.2 (PG&E/Corey) 62:15-19.

utility own/operate structure.[41] And PG&E's program would not accommodate exceptions (e.g. by providing make ready facilities alone for a site host that wants to add qualified EVSE at its own expense), even though these exceptions would enable deployment of more qualified EVSEs at less cost to ratepayers.[42]

PG&E proposes to offer these goods and services as a package procured through an RFP process. All of the customers that PG&E intends to target would otherwise purchase EVSE, network services and O&M from one or more of the many companies offering these products and services on the market. Thus, PG&E is indisputably proposing a program that would enable its entry into competitive markets.

The markets for EVSE and related services are competitive and growing. According to EPRI, there are more than 50 different companies participating in the global public charging market, and PG&E itself testifies that more than 15 companies are providing EV charging equipment and services in Northern and Central California.[43] Many companies that provide various types of EV charging stations, network services, installation and maintenance have intervened in this proceeding, either individually or through trade associations, and many others are involved in the EV rulemaking proceeding.

The companies selling EVSE and network services do not conform to a single business model. They are diverse. Some, like ChargePoint, primarily sell EVSE and related services to the site host, which then owns and operates the equipment for the benefit of drivers.[44] Others offer only EVSE, or other combinations of EVSE, installation, O&M and/or network services. PG&E's supplemental testimony acknowledges the breadth and diversity of the market for EV charging services.[45] The equipment and service markets are competitive, innovating constantly, responding to customer demand and preferences, and to the emergence of new technologies and service models enabled by those new technologies.[46]

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[41] Tr. Vol. 4 (PG&E/Almeida) 477:13-18 (PG&E did not consider make ready approach and "focused solely on the proposal that we put forward.").
[42] See Tr. Vol. 2 (PG&E/Corey) 176:8 through 179:10.
[43] Exh.63, p.8; Exh.221, pp.2-3. See also Exh.3, p.22.
[44] Exh.63, pp.4-5.
[45] Exh. 3, p.22.
[46] Exh. 221, p.2. See also …

b. PG&E does not accurately assess the nature of its proposal and the resulting impacts on the competitive market.

Much of PG&E's testimony in defense of its vertically integrated utility own/operate proposal rests on two fundamentally incorrect representations regarding the proposal and the market. Before discussing the potential anticompetitive impacts of PG&E's proposal and whether they have been mitigated, it is important to set the record straight regarding these two statements.

First, PG&E claims that its program "simply represents another model" in the existing competitive market.[47] This is obviously not the case. ChargePoint and its competitors are creating new products and services, taking all of the business risk associated with participation in a competitive market, and financing through private investment. PG&E is not a private sector business. It is a regulated utility receiving guaranteed cost recovery plus a guaranteed return on equity to provide a regulated alternative to market offerings – one that is not intended to recover direct or indirect costs from hosts.[48] PG&E is seeking to use risk-free ratepayer dollars to create a whole new "program management organization" ("PMO") within the regulated utility to market, own and operate a network of EV charging stations located on property that PG&E will lease from its customers.[49] PG&E's EV charging PMO will enter the existing competitive market and offer a package of goods and services at no cost or greatly reduced cost to the site host. There are unregulated utility affiliates participating in the markets for EVSE and related services, but that is not what PG&E is proposing to do here.

Second, PG&E represents that it is not "directly competing" with the market because it is procuring products from market participants."[50] Again the statement is factually incorrect. PG&E may be proposing to purchase EVSE and contract for services instead of providing them itself. But this does not change the fact that PG&E is directly participating in a competitive market, and marketing goods and services that it will own and operate to site hosts in direct competition with third party non-utility businesses. Indeed, as discussed in more detail below, PG&E's plan to "procure" goods and services from the very market participants it is competing

[47] Exh.3, p.22.
[48] Exh.62, p.9.
[49] Exh.1, pp.2-10 through 2-14.
[50] Exh.3, p.22.

with will alter and distort the market because of the restrictions and requirements PG&E proposes to put on those products, services and providers.

c. PG&E has not provided a reasonable assessment of the market and market concentration.

In addition to identifying whether the market into which a utility intends to enter is competitive, Decision 14-12-079 also requires an examination of market concentration. PG&E's Supplemental Testimony first reiterates its protest that it will "not compete with EV hardware and charging services from third parties," but offers what it characterizes as "the effect on market concentration that the enhanced Phase 1 program proposal (7,530 charging stations deployed by 2020) would have on the current market that provides charging services to site hosts in California."[51] This testimony does not provide a reasonable assessment of competition and market concentration.

First, PG&E's testimony erroneously identifies the relevant geographic market as "at least national and probably global."[52] In fact, PG&E proposes to enter the competitive market for EV equipment sales and services in a narrow geographic market in northern California, where it has franchise rights. This very specific geographic market in northern California is the relevant market. It is neither national nor global in scope.[53] ChargePoint's expert witness Dr. Cicchetti concluded that PG&E's estimate that it would only have a 7.5% market share in 2020 seems to be "widely underestimated when PG&E's error in geographic market definition and unrealistic assumptions regarding expansion of sales outside of the PG&E program are corrected."[54]

Second, PG&E errs in defining the relevant product market. PG&E claims that it will not be "manufacturing or directly operating either EV charging stations or the networking facilities and software to support them."[55] Since PG&E plans to procure EVSE and contract for the networking (and other) services it will provide to consumers, PG&E claims that it "will not be

[51] Exh.3, p.23.
[52] Id.
[53] Exh.62, p.29.
[54] Exh.62, pp.29-30. PG&E's analysis assumes that the PG&E Phase 1 program will have zero impact on other competitive entry into the relevant market, and that there will be 30 times as many non-PG&E EV charging stations deployed by 2020. Id. at 30.
[55] Exh.3, p.23.

competing in the relevant product markets….”[56] PG&E's representations regarding its product and the relevant product markets are flawed and misleading.

As Dr. Cicchetti explains, the fact that PG&E is not itself manufacturing EV charging stations or "directly operating" them does not change the character of what products and services PG&E plans to offer.[57] The relevant product market is not "manufacturing" EVSE, and the distinction between "directly" providing network services or doing it through a contract company is not relevant in defining the product market here. Under PG&E's proposal, PG&E will be providing EVSE and related services, which are products otherwise provided through competitive markets. The analysis of anticompetitive impacts should be focused on the market for EV charging stations in the specific market segments (MUD, commercial, public, workplace, etc.) that PG&E plans to target.[58]

d. PG&E has not identified or analyzed the potential unfair utility advantages or anticompetitive impacts of its proposal.

Allowing a regulated electric utility to use its unique privileges and customer relationships to move into and exert monopoly power in otherwise competitive markets is contrary to fundamental principles of utility regulation and economics.[59] The Commission has recognized that "it may be that certain programs are not appropriate for either ratepayer funding or ratepayer funding without shareholder contribution,"[60] and established strict requirements in Decision 14-12-079 to enable the Commission to ensure that any proposed utility EV infrastructure program that it does authorize will not have anticompetitive impacts.

Elements 3 and 4 of the "factual inquiry" required under Decision 14-12-079 require the applicant to first identify any potential unfair utility advantages of the proposed utility EVSE ownership program, and then, if there is a potential for unfair utility competition, identify what rules, conditions or regulatory protections are needed to effectively mitigate the anticompetitive impacts or unfair advantages held by the utility.[61] PG&E has not provided the information required by Decision 14-12-079. The Commission could not determine, based on the information provided by PG&E on the record, that PG&E has identified and analyzed the unfair

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[56] Id.
[57] Exh. 62, pp.30-31.
[58] Exh.63, pp.30-32.
[59] Exh.63, p.10.
[60] D.14-12-079, p.8.
[61] D.14-12-079, p.9.

utility advantages arising from its program, or that the terms and conditions of the program adequately address and mitigate such anticompetitive impacts.

The original application ignored the requirements of Decision 14-12-079. It merely characterized the proposed deployment of 25,100 charging stations as "PG&E's limited direct participation in the EV charging market" and asserted that this "achieves the balance between utility and non-utility participants required by the Commission's recent Decision 14-12-079…."[62]

The Assigned Commissioner and ALJs did not agree. In the Scoping Memo and Ruling they found that the PG&E program "represents a significant part of the EV infrastructure market in PG&E's service territory."[63] And they found that PG&E's application "did not include the information necessary to determine whether the four criteria above had been met."[64]

PG&E next submitted the Supplemental Testimony proposing the "compliant" and "enhanced" proposals, and purportedly responding to the Assigned Commissioner and ALJs' request for compliance with Decision 14-12-079. This filing acknowledges the diverse, competitive markets for third party EVSE and services.[65] However, instead of identifying and analyzing the potential impacts its entry will have on these markets as required under elements 3 and 4 of the Commission's "balancing test" inquiry, PG&E offers only a conclusory two paragraph assertion, by a witness with no expertise in economics or competitive markets,[66] that there simply are no possible unfair utility advantages or anticompetitive impacts.[67] The entire basis for this conclusion is the irrelevant assurance that PG&E would not discriminate between its own customers, and the unsupported claim that PG&E's procurement process would ensure that PG&E would "not accrue any unfair advantages over non-utility suppliers and service providers."[68]

The only other submission on the record from PG&E is the Settlement Motion, which does not identify any potential anticompetitive impacts or potential utility advantages. It does mention Decision 14-12-079, but instead of identifying and providing the required "case-

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[62] Exh.2, p.1-8.
[63] Ruling p.6.
[64] Id. p.7.
[65] Exh.3, p.22.
[66] Tr. Vol. 3 (PG&E/Corey) 204:21–205:1.
[67] Exh.3, p.26.
[68] Id.

specific" analysis of anticompetitive impacts and how to mitigate such impacts, PG&E says that the proposed "settlement" adopts certain program elements from the SDG&E EV program. PG&E extrapolates that since the Commission had found that the SDG&E program met the balancing test, the Commission must reach the same conclusion in this proceeding.[69] PG&E has thus completely failed to identify or analyze the potential anticompetitive impacts of its own proposal on a case-specific basis, or to independently propose case-specific program modifications that address those impacts.[70]

The showing described above does not satisfy the requirements of Decision 14-12-079. The Commission could not have been clearer regarding its intention to take a "detailed, tailored approach to assessing any proposed utility program based upon the facts of specific requests, the likely competitive impact on the market segment targeted, and whether any anticompetitive impacts can be prevented or adequately mitigated through the exercise of existing rules or conditions."[71] Offering citations to the Commission's decision addressing a different utility program, in a different part of California, with a different program design and purpose, and affecting different target market segments does not meet PG&E's burden of affirmatively establishing that it has satisfied the Commission's requirements.

e. PG&E's proposal will undermine competition and provide PG&E unfair advantages.

PG&E's assertion that "PG&E's Phase 1 EV Program will not provide unfair advantages to PG&E" is not consistent with the evidence on the record in this proceeding.[72] The record shows that PG&E's proposal to own and operate thousands of EVSE in a wide variety of commercial market segments will have significant unmitigated anticompetitive impacts on the market and market participants.

First, the record shows that PG&E's proposal will impair the functioning of the competitive market. PG&E's entry into the market will push out competitors that cannot compete or adapt to PG&E's takeover of a large sector of the workplace, commercial, public and MUD market sectors.[73] As Dr. Cicchetti explains:

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[69] Exh.1, pp.22-23.
[70] Exh.1, pp.22-23.
[71] D.14-12-079, p.8.
[72] Exh.3, p.26.
[73] Exh.63, pp.33-34.

> Barriers to entry will form within the relevant geographical and product markets because no competitive business could enter and compete against PG&E's zero priced EV charging stations, which come with subsidized or freely provided "make ready" facilities at hosts' sites. This would create an unfair and anticompetitive advantage because, under PG&E's proposal, only hosts that accept free PG&E-owned EV charging stations would be entitled to receive the "make ready" investments for free. Other hosts would be obliged to pay for these installation costs and purchase or lease competitively supplied EV charging station equipment. Since PG&E will have displaced other market participants, hosts will effectively be taken out of the equation and have no say related to terms of use and pricing alternatives.
>
> Competition would likely cease within PG&E's target geographical and target product markets, and competitive firms with marketing and technological expertise and an appetite to innovate and compete would be pushed aside or simply not enter PG&E's exclusive market area.[74]

Second, the record shows that PG&E's proposal will affect market forces that would otherwise support innovation and market entry. PG&E's RFP process, plus the anticompetitive conditions created by the "customer of record" and time-of-use ("TOU") pricing requirements, plus PG&E's apparent plans to apply an unexplained weighting system to pick winners and losers in the RFP will determine what equipment and services PG&E will choose for its program.[75] Providers will tailor EVSE and network services for PG&E instead of innovating in response to the product needs and preferences of their customers. Some may be excluded altogether. The elimination of choice, and the resulting impact on innovation is a particularly harmful consequence in markets for advanced technologies and new services.[76] By externally controlling the product specifications and conditions of customer use, PG&E will determine which companies win and lose. This artificial construct deprives consumers of the benefits of normal market functions. A company that might otherwise have been a "loser" in a competitive market may become a "winner" in PG&E's RFP and vice versa.[77]

Third, the record shows that as owner/operator of a utility EV charging program, PG&E will be conflicted. PG&E has a motive to impose program conditions that further its self-interest

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[74] Id. pp. 35-36. See also Exh.21, pp.3-3 through 3-5.
[75] See discussion of this issue in Section V.D.3 below.
[76] Exh.63, pp.12-13.
[77] Id. pp.12-14.

in expanding its program, maximizing its ratebase, and serving other shareholder interests.[78] An example of this is PG&E's consideration of procuring network services separately from EVSE, and possibly contracting with a single network provider to establish a single PG&E network. PG&E may also have an incentive to limit how hosts integrate other technologies on the hosts' side of the meter, the purchase of electricity or services from CCAs or ESPs, or the emerging competitive market offerings in network and information services.[79] In order to justify expanding its own/operate program in Phase 2 PG&E will have a strong economic incentive to forego serious consideration of less costly approaches.

PG&E's own/operate proposal will also have anticompetitive impacts on the separate competitive markets for demand response ("DR") and other load management services provided through EVSE and managed EV charging. PG&E testifies that: "ownership of the unit also gives us options around load management, and that is not an insignificant value to the ownership value proposition."[80] In other words, PG&E plans to use its large network of utility-owned EVSE to provide services such as DR. This is cast as a benefit justifying utility ownership. But PG&E does not mention that DR and ancillary services are products offered by third parties. PG&E does not acknowledge or discuss the potential anticompetitive impact of its proposal on the growing competitive markets for grid-related products and services.

f. The purported "benefits" of PG&E's proposal have nothing to do with utility ownership and control of EVSE.

The Commission's balancing test weighs "the benefits of utility ownership of PEV charging infrastructure against the competitive limitation that may result from that ownership."[81] Benefits that do not directly proceed from PG&E's ownership of EVSE are not relevant to the balancing test analysis.[82]

It is important to be clear about this, because PG&E's testimony repeatedly cites to general benefits of increasing the number of EVs, capabilities of smart EVSE, and the siting and use of EVSE. None of these are "benefits of utility ownership" of EVSE. They are benefits that

[78] Id. p.13.
[79] Id.
[80] Tr. Vol. 3 (PG&E/Corey) 289:14-17.
[81] D.14-12-079, p.5 (citing Decision 11-07-029).
[82] Exh.62, p.24.

would accrue under a properly structured utility infrastructure program regardless of utility ownership.[83]

Specifically, PG&E's supplemental testimony on the balancing test benefits first refers to the "nature and benefits of its proposed EV Program" and program terms.[84] Next PG&E refers to providing "safe and reliable power" (e.g. through operations and maintenance) and data collection and reporting.[85] Finally PG&E cites benefits "related to state climate goals, reduction in GHG emissions and increased EV adoption.[86]

None of the above are "benefits of utility ownership." Any generalized environmental benefits or other benefits of increased EV adoption or increased use of smart EVSE that may occur under PG&E's program would not be the result of PG&E owning and controlling EVSE. The provision of safe EVSE and reliable operations and maintenance are functions that will be provided by the companies that supply these services, regardless of utility ownership.[87] And data collection and reporting can and should occur under the program, regardless.[88]

The Settlement Motion acknowledges the balancing test requirement, but then refers to the Commission decision in the SDG&E EV proceeding, and states that certain elements of the SDG&E settlement have been "incorporated" into PG&E's "settlement" proposal.[89] Again, PG&E neglects to identify any benefits unique to utility ownership, or weigh them against the anticompetitive impacts of utility ownership in the relevant product and geographic markets PG&E proposes to enter. The mere citation to the SDG&E case is not sufficient to satisfy the requirements of PU Code Section 740.3(c) and the balancing test. PG&E has failed to meet its burden of proof once again.

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[83] Ironically, in its rebuttal testimony PG&E's witness charges that ChargePoint and the numerous other intervenors opposed to its proposal "fail to base their arguments on a *balancing of the potential competitive impacts of PG&E's proposal against the benefits of the proposal*" and characterizes this "failure" as a "principle defect" of intervenors' arguments against PG&E's ownership scheme. Exh.4, pp.2-3 (emphasis added). This accusation perfectly demonstrates PG&E's own misinterpretation of the balancing test. It is not the "benefits of the proposal" that are weighed against anticompetitive impacts, it is "the benefits of utility ownership," which is obviously not the same thing.
[84] Exh.3, pp. 16-20.
[85] Id. pp. 20-21.
[86] Id. p. 21.
[87] Tr. Vol.2 (PG&E/Corey) 288:2-5.
[88] See Exh.64, pp.8-9 (addressing ChargePoint's recommendations regarding reliable operations and maintenance and data collection).
[89] Exh. 1, Settlement Motion, pp. 22-23.

g. The terms of the "settlement" will not mitigate anticompetitive impacts or unfair utility advantages.

As noted above, PG&E now maintains that the addition of settlement language from the SDG&E EV case should be accepted in lieu of actually applying the statutory requirements and balancing test to the specifics of PG&E's proposal in this case. This construct is inconsistent with Decision 14-12-079, but even if it was not, it is clear that the terms of the "settlement" do not provide a basis upon which the Commission could determine that the benefits of utility ownership outweigh the unmitigated impacts on competition or unfair utility advantages.

Specifically, the "settlement" version of PG&E's program does not address:

- The market impact of inserting a regulated utility into the market as the dominant player, which turns market participants into suppliers to a single monopoly buyer instead of allowing them to market freely to customers.
- The lack of any customer choice or competition in DCFC products and services, or site host control over pricing.
- PG&E's stated refusal to commit to an open pre-qualification process or to disavow Level 2 RFP structures that will exclude some participants and favor some business models over others.
- A poorly conceived default TOU pricing scheme that will undermine site hosts' ability to use technology and pricing to meet the needs of the site and drivers.
- A default "customer of record" arrangement that takes control of EV charging and load management out of the hands of site hosts and attempts to regulate the pricing passed on to EV drivers.

Attempting to graft selected terms from another case onto a completely different program is not a useful approach to addressing the anticompetitive impacts and unfair utility advantages in the original proposal. It just complicates the proposal and creates new issues. Fortunately, there is in the record of this proceeding a clear alternative to PG&E's own/control proposal.

2. PG&E should focus primarily on deployment of make ready infrastructure.

PG&E can play a critical role in expanding EV charging infrastructure. PG&E can and should help address obstacles currently preventing wider deployment of EV charging infrastructure, especially at MUD locations and disadvantaged communities.[90] PG&E does not need to own and control EVSE to provide these benefits.

[90] Exh.64, pp.6-8.

All of the anticompetitive impacts and utility advantages arising as a result of PG&E's proposal to own and control EVSE are avoidable by restricting PG&E's ownership to utility-side infrastructure, and enabling customers to choose, purchase, own and operate the EVSE, with targeted rebates as needed, and subject to a reasonable load management plan. The Commission should instruct PG&E to frame its Phase 1 program as a make ready program. This approach enables the utility to focus its resources on its areas of core strengths and competencies, retains a significant inducement for customer participation by subsidizing 50-70% of the cost of installing a charging station, and avoids anticompetitive impacts by simply allowing site hosts to select, own, maintain and operate EVSE subject to reasonable requirements to protect the ratepayer investment and ensure load management.

Dr. Cicchetti observes that this approach is consistent with how California has helped create and sustain thriving competitive markets in DER goods and services:

> [T]his Commission has provided good models for using its regulatory authority over the utilities to help advance new markets and new technologies. The Commission has successfully combined economic incentives and competition to facilitate deployment of new products in California that benefit customers and serve public policy goals. The balanced mix of incentives that support rather than supplant private investment and policies supportive of competition encourages innovation and lets consumer preferences emerge in the market. Competitive markets are more efficient in sorting out what works and what consumers want than a large utility's planners. The same opportunities for a combination of regulatory encouragement, utility financial support and competition are available in the EV charging station market.
>
> The Commission has taken important steps to encourage very successful expansions in distributed electricity generation. For example, solar PV rooftop investments have expanded beyond virtually everyone's previous expectations. This happened, in large part, through the Commission's providing regulated utility financial support to the competitive market under the California Solar Initiative (CSI). Customers received incentives to pay for part (but not all) of the cost of a rooftop solar system. PV manufacturers and installers competed on price and service. The Commission established certain rules such as warranty requirements to ensure that the ratepayers' investment in the incentives was protected. This approach accommodated and

> unleashed competition, which added marketing and product innovation in the competitive rooftop solar market.[91]

The Commission has a choice of how best to "effectively mitigate the anticompetitive impacts or unfair advantages held by the utility" as required under Decision 14-12-079. The Commission should adopt the make ready approach for PG&E's Phase 1 program.

For the reasons outlined above, PG&E has not made a case justifying utility ownership of EVSE. However, if the Commission considers utility ownership as a component of this program, it should be strictly limited in scope to the underserved markets of MUDs and underserved communities, and subject to program conditions that guarantee site hosts in all customer segments choice of EVSE and services and discretion in the operation of on-site EVSE and pricing to drivers, as discussed herein.

C. COSTS V. RATEPAYER BENEFITS

1. PG&E's program is not cost-effective or a just and reasonable use of ratepayer funds.

PG&E has not met its burden of showing by affirmative evidence that the costs of its proposed program are reasonable and prudent. In fact, there is little, if any, evidence that PG&E has given any consideration to the cost-effectiveness of its program. PG&E has focused almost exclusively on maximizing the amount of money it can capitalize for the benefit of its shareholders. Costs and revenues that are "passed through" to ratepayers have been of less concern to PG&E.[92] PG&E did not even consider less costly program designs before proposing its utility own/operate proposal.[93] Instead, PG&E's entire showing regarding the "reasonableness of program costs" as required by Public Utilities Code section 451 consists of PG&E's comparison of the $160 million settlement budget with PG&E's original proposal ($654 million) and its "enhanced proposal" ($222 million).[94]

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[91] Exh.63, pp. 14-15. The Commission adopted a similar mix of utility support to the competitive market to expand distributed generation in the SGIP program. Id. at 15. Creating regulatory opportunities for customer choice in telecommunications transformed "plain old telephone service" to a digitized competitive market. Id.

[92] For example, PG&E neglected to estimate revenues generated by the EV charging stations PG&E proposes to own and operate. Tr.Vol.4 (PG&E/Corey) 303:23-28. PG&E's witness explained that no calculation of revenue was made because "[i]n this case of course electricity is pass-through for the investor-owned utilities in California." Id. 304:7-9.

[93] Tr. Vol.4 (PG&E/Almeida) 478:4-13.

[94] Exh.1, Settlement Motion p.22.

The costs in PG&E's proposal are excessive, compared to the costs under the alternative approach recommended by ChargePoint and others, and compared to other programs.[95] In addition to high equipment costs (and paying shareholders a return on equity on the utility-owned equipment), PG&E's proposal involves overhead costs associated with PG&E's creating a whole new structure within the utility for procuring and maintaining EV charging equipment and operating an EV charging network.

The scale of PG&E's proposed expenditures, per deployment, as compared to alternatives is illustrated by the costs of the DCFC component of PG&E's program. TURN and PG&E Joint Exhibit 58 estimates the total life revenue requirement for installing 100 DC Fast Chargers to be $60,866,414.[96] In contrast, the California Energy Commission recently awarded contracts for the installation of 61 DC Fast Chargers at a cost to the State of $8,900,000.[97] PG&E has not explained, much less justified, such an enormous discrepancy. On redirect examination on this issue, PG&E merely noted that the total cost of the CEC program will be $11,500,000 for the 61 DCFC after site host and third-party matching contributions are considered.[98] But even if the value of site third-party contributions is considered, this does not account for the enormous cost discrepancy between the costs per charger under the CEC grant program and PG&E's proposal. More to the point, this colloquy highlights the problem: PG&E's DCFC proposal does not ask for a meaningful site host contribution or evidence of matching contribution from other private or public source.

The record does not support PG&E's inclusion of any DCFCs in this program, but if the Commission decides to allow PG&E to include DCFCs (see discussion below in Section V.G.4), ChargePoint recommends that the total average life revenue requirement for any such chargers not exceed the average cost per charger under the CEC program.

Programs based on utility-financed make ready, targeted rebates and distribution upgrades result in more EVSE deployment at least cost. Utility ownership coupled with rate base cost recovery is likely the most costly approach to increase deployment of EV charging stations, especially in areas where there in a demonstrable willingness of site hosts to pay part of

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[95] See Exh.59, pp.25-26; Exh.141, pp.5-6.
[96] Exh.58, p.4 (Revenue Requirements Settlement Model – DCFC Cases).
[97] See Exh.55, p.1; Exh.61, p.1. The actual cost per DCFC under the CEC grants is actually lower because the total cost of $8,900,000 also includes the installation of Level 2 chargers. See Exh. 61, p.1
[98] Tr.Vol.4 (PG&E/Corey) 313:15-23.

program costs.[99] Adopting ChargePoint's recommendation to deny PG&E's request to own and operate all program EVSE (both DCFC and Level 2) clearly will produce significant program savings by shifting this budget element to site hosts. Since markets that support hosts' ownership and financial contribution encourage innovation, alternative terms and pricing, and efficient risk taking, a more cost-effective program will also address potential utility market power and anti-competitive concerns.[100]

D. CHOICE AND SELECTION OF EVSE AND NETWORK SERVICES; SUPPLIER DIVERSITY

1. Providers and equipment should be chosen by the site host from a list that is pre-qualified through an open, fair, transparent and straightforward process.

Customer choice is good for consumers. When customers have the freedom to select equipment and services they are more likely to find the right products for their needs and be invested in the process. Customer choice also drives competition and innovation, which results in better products at lower cost.

In this case customers are the employers, owners of MUDs, businesses and government institutions eligible for participation in the PG&E Phase 1 program. These site hosts have a diversity of reasons for wanting EV charging at the location, varying needs and interests, and individual circumstances that will affect their choice of specific equipment and services. The Phase 1 PG&E program should allow every eligible customer to choose from among all of the providers and services that meet the program's requirements.

The simplest and best way accomplish this is to establish a simple, open, fair and transparent pre-qualification process that allows participation by all eligible providers, without any discrimination as to business model, service or size. The pre-qualification process should not be artificially segmented or constrained. The baseline criteria for participation, such as vendor creditworthiness, experience, compliance with accepted product quality standards equipment functionality and network capabilities, should be clear, detailed and disclosed up front in the process. Any provider that meets the baseline criteria should be allowed to offer any and all eligible equipment and services directly to site hosts individually or as a package. Utility involvement in the pre-qualification process should be subject to rules strictly protecting market-

[99] Exh.62, pp.42-43.
[100] Id., p.43.

neutral customer engagement. In this environment, customers will be able to tailor their choice of equipment to the needs of the site, and third party providers will be encouraged to participate and compete on product, services, and price.

If, as recommended by ChargePoint and other parties, the Commission simplifies PG&E's proposed program by focusing on make ready development in Phase 1, customer choice will be easily achieved and protected. PG&E would establish a pre-qualification process such as described above, inform the site host whether they qualify for rebates beyond the value of the make ready, and allow providers to market qualified products and services directly to the site host. As discussed below, PG&E's proposed utility-ownership model is not well designed to enable customer choice. If the Commission finds reason to allow PG&E to own and operate EVSE in any customer segment during Phase 1, the Commission should take care to ensure that customer choice is carefully protected.

2. A rolling pre-qualification process is necessary in order to accommodate rapid advancements in products and services.

Pre-qualification must be an ongoing process. We are at a very important point in the development of EV charging technologies and services. Private investment is bringing new companies with new ideas into the market at an unprecedented pace.[101] Consumer choices in EV charging equipment and related services are expanding rapidly and innovation is taking the industry in new directions that cannot be easily tracked and predicted.[102] This creates a benefit for consumers and a challenge for the Commission. In establishing the rules for the PG&E Phase 1 program, the Commission should assume that new companies will be coming forward with new products throughout Phase 1, and existing companies will be upgrading EVSE and service offerings. The Phase 1 PG&E program must be designed to account for this.

The pre-qualification process for providers, equipment and services should remain open and available to new entrants throughout the duration of the program. If the program design is kept simple and straightforward, this should not be difficult. Since PG&E does not have internal expertise in EV charging technology, PG&E should be instructed to consult Commission staff if questions regarding the pre-qualification of new technologies arise.

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[101] Exh.221, pp.2-4.
[102] Id., p.2

3. The PG&E proposal does not ensure customer choice of EVSE and network services.

Unfortunately, the current "settlement" version of PG&E's proposal does not adequately protect customer choice. For the reasons below, the Commission should replace PG&E's proposal with a straightforward pre-qualification process that protects competition and offers participants a real choice in EVSE and network services.

a. PG&E's DCFC procurement proposal offers no customer choice.

Under the "settlement" PG&E would "select DCFC site equipment and network providers."[103] The site host would have no involvement, let alone choice. The "settlement" refers vaguely to a "competitive solicitation process" but offers no explanation of what this term means, and no commitment to an open pre-qualification process that would include all eligible DCFC suppliers and service providers. Indeed, the wording of the "settlement" implies that PG&E may decide to procure DCFC and network services separately, which would discriminate against market participants that offer EVSE and network services as a package.[104] The "settlement" does not explain how PG&E intends to provide for ongoing O&M services. PG&E offers no explanation or defense for its proposal to deny DCFC site hosts the opportunity select the DCFC and related services.

PG&E's proposal for a "no customer choice" approach to procurement of DCFC should be rejected. If the Commission decides to authorize DCFC as part of the Phase 1 program, the DCFC site hosts should be offered a choice of equipment and service in exactly the same manner as Level 2 site hosts. For all the reasons discussed above, customer choice is far preferable to utility procurement of DCFCs and related services.

b. PG&E's proposed Level 2 RFP process constrains customer choice, innovation, and private investment.

The Settlement Motion touts PG&E's proposed annual RFP process for Level 2 EVSE and network services as enabling "choice of charging technology".[105] The record does not support this claim.

First, the language of the "settlement" offers vague and conflicting language regarding the process through which L2 customers would select EVSE and network services. On page 11,

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[103] Exh.1, Settlement, p.5.
[104] Id.
[105] Exh.1, Settlement Motion, p.4

the "settlement" first says that site hosts may "choose" EVSE and services from a list of pre-qualified options. However, these "options" must be consistent with "the goals of Charge Smart and Save," which are not enumerated, but apparently include such undefined and indefinable qualities as "a positive driver experience."[106]

Second, the "settlement" proposes that PG&E's "procurement" of EV charging equipment and services "shall be subject to advisory review by Non-Market Participant members of the Program Advisory Council."[107] As discussed further in Section V.M below, PG&E does not define this group or its function. But adoption of this proposal would clearly give stakeholders with various agendas and vested interests (but no expertise in the technology) the power to influence what products and services are available to customers and under what conditions.

Third, PG&E and not the site host will be the ultimate decision-maker regarding EVSE and services. Section 11 of the "settlement" refers to a "qualification" process, but then states that PG&E (and not the site host) will contract with the provider of "operating systems and related hardware." PG&E has apparently intentionally excluded any consideration of submetering in its program because "PG&E will not be directly billing drivers."[108]

Fourth, there is a clear potential for discrimination in the structuring and administration of PG&E's proposed RFP. PG&E's original proposal called for the separate procurement of EVSE and network services (which would automatically result in a discriminatory and exclusionary process).[109] On cross examination, PG&E's witness refused to provide any assurance that the RFP would be agnostic as to business model, testifying that PG&E is "still debating" how its RFP will be structured:

> Q: How many RFPs are you planning to issue the first year of program?
>
> A: We are still debating whether we issue separate RFPs for installation services as distinct from maintenance services as distinct from the equipment and network equipment solicitation.[110]

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106 Exh.1, Settlement p.11.
107 Exh.1, Settlement p.11.
108 Joint Response by PG&E et al. to Administrative Law Judge's Ruling Directing Joint Settling Parties to Respond to Various Questions, p.9.
109 See Exh. 62, p. 25.
110 Tr. Vol.2 (PG&E/Corey) 77:12-18.

This does not provide a record upon which the Commission can make a decision on a central program design element of PG&E's proposal. PG&E might decide to have one inclusive RFP, or it might decide to have a separate RFP for "installation services" and another RFP for "maintenance services" and another RFP for equipment and another RFP for network services. Or there may be a solicitation for "all of the equipment" that requires bidders to enter into "partnerships" with each other in order to participate.[111] PG&E is also apparently still debating whether there will be one or more than one provider of network services for the entire PG&E program.[112] PG&E offers a list of RFP evaluation criteria, and testifies that PG&E "expects" that they will be somehow weighted or prioritized to determine RFP results, but the record is devoid of any explanation of what PG&E's priorities in picking providers would be.[113]

Clearly, PG&E has not given its RFP process much thought or consideration, and instead plans to decide on all of these issues at some point in the future. For PG&E the RFP structure is an afterthought. But for market participants it is a fundamental issue that will determine whether or not they will be part of the program, and whether the program will create islanded EVSE and networks. ChargePoint witness Michael Jones explains the issue this way:

> PG&E's proposal is ill-conceived and unworkable. For reasons that I have discussed above, PG&E should not be selecting EV charging equipment and services. This should be done by the site host. PG&E's plan to specify and procure EV charging stations and network services separately creates additional market distortions, since it forces market participants that currently sell products and services through a variety of business models and approaches that are designed for the host customer, to either adapt to PG&E's model or drop out of the market.[114]

Vague expressions of PG&E's intent to "leverage the EVSP market expertise and foster innovation" are completely meaningless if the Commission gives PG&E the authority to structure procurement in a way that excludes or discriminates against market participants, technologies or business models.

PG&E has not offered a coherent explanation of how it will qualify and offer customers a real choice of EVSE and related services, much less met its burden of supporting the

[111] Tr. Vol.2 (PG&E/Corey) 77:19-27.
[112] Tr. Vol.2 (PG&E/Corey) 78:12-14.
[113] Tr. Vol.2 (PG&E/Corey) 195:7-22.
[114] Exh.63 p.25.

reasonableness of the undefined proposal with evidence on the record. Since PG&E has not met its obligation to provide and support a procurement proposal that can be examined and considered on its merits, the Commission should adopt a simpler and better pre-qualification and site host selection approach, as outlined above.

E. SITE SELECTION CRITERIA; SITE HOST ROLE; AND CUSTOMER PAYMENTS

1. Site Host Role

a. Site hosts want and need to control the use of EVSE and pricing for the benefit of their business, tenants, customers and employees.

The role of the site host is a critical issue in this proceeding because ultimately it is the site host that makes the decision whether or not to install EV charging equipment on site. PG&E has asserted throughout this proceeding that its most important goal is to offer a program that will attract participation by site hosts. PG&E claims that it wants to make it "really easy for the site hosts to say yes to the infrastructure."[115] ChargePoint fully agrees with this goal. Unfortunately, PG&E's proposal is <u>not</u> designed to make it easy for the site hosts to say yes.

Instead, PG&E has offered a proposal that creates obstacles and issues for site hosts. Under the proposed program design, PG&E would own and operate EVSE on the site host's property, and would require the site host to sign an easement, lease or license agreement giving up all control over the parking space, the property on which it is located, and all of the infrastructure on site. PG&E's proposal would oblige the site host to allow a third party company to become a separate PG&E "customer of record" on the site host's property. It would also eliminate the site host's discretion over the use of technology and about how to manage charging and pricing, and instead force the site host to accept TOU pricing and billing by the third party "customer of record." If a site host wants to avoid some of these restrictions, the site host will be required to "opt out" and submit a load management plan, which PG&E can reject and apparently intends to reject if, for example, the site host does not want to reflect TOU pricing in the charges to drivers.[116] The "settlement" does not specify whether the site host has any right to switch billing options. And PG&E apparently will not allow the site host to change the on-site network provider as it could in a normal contractual relationship.[117]

[115] Tr. Vol.2 (PG&E/Corey) 68:2-5.
[116] Tr. Vol.2 (PG&E/Corey) 171:7-16; Tr. Vol.5 (PG&E/Pease) 524:19-22.
[117] Tr. Vol.2 (PG&E/Corey) 176:3-7.

PG&E's testimony is replete with claims that its so-called "turnkey" proposal was designed to meet the needs of site hosts.[118] However, there is no evidence on the record that site hosts have requested this complicated program design, and no testimony from the potential eligible site hosts supporting PG&E's claims. Rather, the record shows that site hosts have expressed a strong preference to choose EVSE and network services, and to maintain control over the charging stations and pricing.

For example, TechNet, which represents many companies that have invested their own capital to provide workplace charging to employees, expressed serious concerns about PG&E's proposal:

> A significant number of TechNet's member companies have installed charging stations at their offices to provide workplace charging to employees. These companies currently have many choices that they would not have in PG&E's program. These workplaces have the ability to set the price for the charging service at the station – many of which provide free charging for their employees. There is also the ability to set access controls limiting charging to employees only, which is often a security concern for private parking lots. And as mentioned above, these companies also have choices for managing the charging stations through software, or building management systems or use load management plans that incorporate on-site generation or storage technologies. All of these choices would be threatened by PG&E's proposal.[119]

Chargepoint's witness, Michael Jones, who has spent more than six years working with site hosts, agreed:

> In my experience selling thousands of charging stations to businesses, site hosts want choice and control. Site hosts have opinions and preferences regarding the hardware. They also want choices in the services related to EV charging. The Yale Center for Business and the Environment analyzed different charging products and business models in its report "Financing Electric Vehicle Markets in New York and Other States" and concluded that "[n]o single technology or business model available today is exactly right for all charging scenarios. There are pros and cons to each alternative, depending on the location and the driver base that the charging station aims to serve." …

[118] See, e.g. Exh.2, p.1-4; Exh.3, p.16.
[119] Exh.201 p.4.

> Site hosts value having a choice among options for payment collection, station fees, station accessibility, authentication of drivers, advertising to drivers, and managing data such as usage, energy, and sustainability calculations. Site hosts are the parties best qualified to make choices about the number of charging stations needed now and in the future at their site by taking into consideration the number of drivers on the network, utilization data and qualitative data gleaned from direct relationships with their employees, tenants or customers. …
>
> Network services enable customers to set pricing and access controls that work best for the drivers visiting that location. PG&E's proposal eliminates the host's control of the station and disregards the link between the site and the behavior of the drivers that park there. Enabling the host to make decisions about EV charging stations and services helps ensure that the load from the stations is incorporated into the overall energy management of the site's building, facilities, and rooftop solar PV system, which enables a customized approach to energy efficiency and load management. I have found that workplace customers want control over access to their stations (and parking lots) for security reasons.[120]

Apparently recognizing the deficiencies in its proposal, PG&E's "settlement" version attempts to lift some language from the negotiated settlement in the SDG&E EV case and insert it into the original PG&E proposal without changing other program elements. This language offers generalities regarding site host choice in procurement, and an option (designed and intended solely for the SDG&E VGI case) under which site hosts may "opt out" of some of the site host constraints.[121] This slight-of-hand solution does not address the defects in PG&E's proposal because PG&E does not address program design issues (such as the customer of record requirement) or its failure to justify its costly own/control model over less costly, and more scalable make ready approaches.

As discussed above, PG&E also has made no commitment to an open, inclusive RFP, let alone considering the superior option of simply pre-qualifying equipment and providers and letting site hosts choose. PG&E's "opt out" for some site hosts will leave the "default" site hosts with no control over the EV charger, no control over pricing, and no ability to integrate on-site resources or systems. Significantly, PG&E has clarified on the record that it intends to refuse the

[120] Exh.63 pp.17-18.
[121] Exh.1, Settlement.

rate-to-site host option to any site hosts that do not "communicate TOU pricing to their drivers" as part of their load management plans, making the "opt out" no real option at all as far as pricing flexibility goes.[122]

In short, PG&E's attempt to selectively borrow negotiated settlement provisions from the SDG&E case does not alter the fact that PG&E's proposal offers hosts limited choice and no control. PG&E's tactical decision to add some SDG&E settlement to its proposal does not absolve PG&E from the obligation to affirmatively justify adoption of its complex and unprecedented "default" program design, in which PG&E's contract service provider essentially usurps the role of the site host in the operation of EVSE, pricing services, and managing on site charging.

b. The Commission should reject PG&E's proposed "customer of record" requirement.

PG&E's original program design proposed the unusual requirement that a single third party company would be selected to become the network service provider for all of the PG&E owned EVSE, and become PG&E's "customer of record" in place of the site host on each customer site.[123] Although this third party company would not own property or have any other relationship with the site or the site host, this absentee "customer of record" would hold an account with PG&E for the site, and purchase electricity at the actual customer's rate.[124] The "settlement" version of PG&E's proposal retains this proposed "customer of record" arrangement between a third party network provider and PG&E as the "default" option, without any change. This requirement should be rejected for many reasons.

i. PG&E has not provided any justification for its default third party "customer of record" proposal.

Surprisingly, although PG&E is proposing a complicated new program element that has no precedent in any other EV program or, for that matter, anywhere else, PG&E has not explained in its testimony why it wants to insert this third party on-site "customer of record" in between PG&E and the <u>real</u> PG&E customer – the site host. Nor has PG&E identified any

[122] Tr. Vol.2 (PG&E/Corey) 171:4-16 ("…if these site hosts want to take the rate-to-host option, we are interested in what they plan to do to communicate time-of-use pricing to their drivers at their site. And that is one of the conditions of taking advantage of this program.") Tr. Vol.2 (PG&E/Pease) 524:19-22 ("The TOU rate to host, it [assessment of demand charge to driver] would probably be part of the load management requirements that they would need to provide to PG&E.")
[123] Exh.2 p.2-8.
[124] Tr. Vol.2 (PG&E/Corey) 174:15 – 175:8.

benefits to drivers, site hosts or ratepayers resulting from this novel arrangement. There is no reason that any entity other than the site host needs to take over as the "customer of record" for the EV charging load on site. The site host can simply purchase tariffed electricity for the EV charging station as it does for its other on-site account(s) and enter into a contractual arrangement directly with its network service provider.

ii. The separate "customer of record" arrangement is complex and burdensome.

The separate "customer of record" arrangement raises numerous questions and complexities that are not addressed anywhere in PG&E's testimony or the "settlement." These are not small detail issues that can be addressed in implementation. These are foundational questions that reveal PG&E's failure to fully think through its program design. For example:

<u>What is the relationship between this off-site third party "customer of record" and the driver?</u>

When the site host is providing EV charging services, the relationship with the driver is straightforward. The driver is the site host's employee or tenant or customer. If a third party company is inserted into this relationship, complications arise that are not addressed anywhere on the record.

For example, at a typical workplace an employee can simply drive up and access a charging station, with or without a pass card or other authorization, depending on the site host's preference and the security situation. If there are questions, the driver knows who to talk to – the employer. Under PG&E's "customer of record" proposal this completely changes. The third party network operator apparently may or may not be the same company that provided the EVSE, and may or may not be the company that provides maintenance services for the EVSE.[125] Since all of this is out of the hands of the site host, the burden will be on the employee to resolve any issues such as billing arrangements with the third party, communications with one or more third parties if the charging station is not responding or not working, or perhaps also with PG&E. The situation becomes even more complicated because apparently PG&E is assuming that the site host will have some undefined level of responsibility to manage the use of the EV parking

[125] See Id. 77:12-18.

spaces at the same time that the absentee "customer of record" will be controlling the charging station.[126]

The record suggests that PG&E has not considered how its complex program design will affect drivers at commercial, national parks, government offices, universities or other public locations. When asked how a driver would use a charger at public locations, the PG&E witness answered "the majority of our equipment we anticipate being put into workplaces and multiunit dwellings. So this issue would be unique to, for example, a site at a national park or something like that."[127] When asked how PG&E would provide a "seamless driver experience" at the charging stations accessible to the public, all the witness could do was speculate: "Well, hypothetically since there are a limited number of charging companies already available on the market, potentially those chargers will be available to that individual who may be a member of that particular network."[128] The bottom line is that although the application was filed 18 months ago, PG&E does not have any idea how it can provide a "seamless" charging experience for drivers through this complicated arrangement. Instead, PG&E seems to be relying on third-party providers to figure it out: "We expect to go to the market with an RFP and solicit for these ideas that the market can provide."[129]

What is the relationship between the "customer of record" and the site host?

As discussed above, the landlord or employer normally would have physical control of the charging stations on site, and have a direct contractual relationship with the company providing managed charging services. Under PG&E's "customer of record" arrangement that changes. The site host will apparently have no legal relationship with the company controlling the charging stations on site. Instead, PG&E will be in contract with the third party, both for network services and purchase of electricity.[130] Again, PG&E's creation of this new "customer of record" arrangement creates issues. If there is no obligation or communication between the company controlling the charging station and the site host, the host will not be able to directly assist the driver with access issues, or answer questions about billing.

What about DA and CCA customers?

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[126] See Tr.Vol.2 (PG&E/Corey) 75:13 – 76:15.
[127] Tr. Vol.2 (PG&E/Corey) 168:7-11.
[128] Tr. Vol.2 (PG&E/Corey) 168:26-169:3.
[129] Tr. Vol.2 (PG&E/Corey) 169:19-21.
[130] Tr. Vol.2 (PG&E/Corey) 174:15-21.

Many of PG&E's commercial and institutional customers in Northern and Central California are direct access ("DA") customers. That means that the customer of record is the customer of an ESP for electricity and a customer of PG&E distribution and other services. PG&E's witness testified at hearing that for DA participants under PG&E's default rate to driver option the "energy provider is the ESP."[131] This raises many questions. If the ESP is expected to provide electric commodity service to the third party "customer of record" network service provider, who will then charge the EV driver, what is the contractual relationship between ESP and this new "customer of record"? Can the customer of record be a DA customer? None of this is addressed in PG&E's original proposal or in the settlement.

The CCA situation is similarly ambiguous. PG&E's witness testifies that in any situation where there is a CCA, the CCA rules are applied, "[s]o the CCA will be providing electricity to the site host in that situation."[132] If the CCA is providing electricity to the site host, does that mean that CCA customers will automatically default to the "rate-to-host" exception and never be on the default rate-to-driver option or have to deal with the PG&E third party "customer of record" as others do? Since an expanding number of PG&E customers (especially in areas with many early EV adopters) are CCA customers, how does this affect PG&E's default proposal and assumptions? Again, is seems that PG&E has not considered these questions, or at least there is no evidence of it in the record of this proceeding.

iii. The third party "customer of record" requirement is discriminatory.

The third party "customer of record" requirement will unfairly exclude or discriminate against companies like ChargePoint that provide EVSE and network services for site hosts, but not directly to drivers.[133] These providers of network services will apparently not be eligible to participate, solely because their business model does not fit PG&E's program, which calls for the network provider to become a PG&E "customer of record" and contract supplier of service to each individual driver at each customer site. Some companies participating in the market may operate under a business model that includes taking responsibility for purchasing electricity on behalf of the customer (or managing the purchase transaction), but there is absolutely no evidence of this on the record. By creating this strange and unprecedented default arrangement,

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[131] Tr. Vol.2 (PG&E/Corey) 180:14-21.
[132] Tr. Vol.2 (PG&E/Corey), 183:6-12.
[133] Exh. 63, p.4.

PG&E would effectively be picking winners and losers, and/or forcing market participants to become PG&E's "customer" in place of the site host. Or PG&E may offer ChargePoint and similar companies the option of serving only the subset of customers who opt for the new "rate-to-host," but this would not address the discrimination issue, and effectively segments the market, to the detriment of market participants, site hosts and drivers.

iv. The "rate-to-driver" option does not resolve the many issues presented by PG&E's default "customer of record" requirement.

PG&E's attempt in the "settlement" to create an "out" of the default "customer of record" arrangement for a subset of site hosts does not address the fundamental flaws discussed above. The "settlement" proposes a "rate-to-host" option taken from the negotiated settlement in SDG&E's VGI pilot.[134] The "settlement" seems to say that for the subgroup of customers that have opted for the "rate to host" option <u>and</u> that are allowed by PG&E to participate under this option, the "customer of record" requirement would no longer apply. However, the creation of this new exception for a subset of customers does not address any of the issues identified above, because the "customer of record" requirement is the <u>default</u> under PG&E's proposal. For any site that is on the default option, PG&E will still apparently require the third party company providing network services to also be PG&E's "customer of record" instead of the site host. In other words, for reasons that are unexplained PG&E is keeping as a central program element a requirement that favors one industry business model over others.[135] This unjustified, ill-conceived and discriminatory arrangement must be eliminated altogether from the PG&E program.

c. There is a better way.

The Commission has a clear alternative to PG&E's proposal. The Commission can approve a simpler, less expensive and less complex program design that does not take choice and control away from the site host. The program should allow participating site hosts to simply pick qualifying EVSE and network services from a list of pre-qualified providers, and contract directly with that network provider for whatever package of services best fits the site's needs (plus any additional services the site host might want to purchase). There need not and should

[134] Exh.1, Settlement p.10.

[135] Some companies' business model may accommodate this requirement, others will not. PG&E is asking the Commission to approve a program that enables discrimination between providers and utility regulation of pricing through the activities of the third party "customer of record." This is fundamentally contrary to the intent underlying AB 631.

not be a separate third party "customer of record." Site hosts are already the customer of record and can purchase electricity from PG&E at tariffed rates. Site hosts should be free to use the smart charging equipment and services they purchase (with or without assistance from rebates) to manage charging and serve the needs of the drivers that work, live or visit the site. As discussed in more detail in section V.F below, every site host should be required to provide a load management plan reflecting "best practices" for the particular customer segment. But the site host, not PG&E, should decide how best to deploy EV charging stations and manage EV charging on site. And, as discussed in more detail below in section V.E.2, the site host, not PG&E, should control how tenants, employees, customers and visitors are billed for charging.

2. Customer Payments

a. Requiring a meaningful customer payment serves multiple public policy objectives.

The Commission has endorsed requiring site hosts make a contribution to covering all or a portion of the cost of EVSE as a condition of participation in a ratepayer-supported EV infrastructure program.[136] This comports with well accepted principles of economics and regulatory policy, especially where the utility is providing valuable upgrades and equipment.

First, a well-structured customer payment requirement will save ratepayers money by leveraging, instead of replacing, private investment. This "matching" principle is acknowledged in the Commission's prior decisions on EV infrastructure programs.[137] It is also well reflected in the structure of many California "clean energy" programs. The statutory CSI, SGIP and net metering program provide ratepayer-supported incentives, e.g. in reduced cost interconnections or exemptions from exit fees, rebates that provide a portion but not all of the cost of equipment and installation, and/or billing accommodations.[138] The energy efficiency programs offer rebates and on-bill financing.[139] And the CEC's Alternative and Renewable Fuel and Vehicle Technology Program specifically includes consideration of whether and how private or public

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[136] See D.16-01-023 at pp.14-18; D.16-01-045 at pp.146-148.

[137] See, e.g. D.16-01-023 p. 14 ("The rebate issue is critical. Too small a rebate could result in too little participation in the program. Too large a rebate and customers will unnecessarily be funding what the market could provide.")

[138] See Pub. Util. Code §§ 379.6, 2827-2827.1; Pub. Resources Code § 25780 et seq.

[139] See, e.g. http://www.pge.com/en/mybusiness/save/rebates/ief/index.page (Customized Incentives for EE); http://www.pge.com/en/mybusiness/save/rebates/onbill/index.page (Energy Efficiency Financing); http://www.pge.com/en/mybusiness/save/rebates/hvac/owners.page (HVAC incentives).

match funding may be provided by project sponsors to leverage other available sources of capital and optimize each program dollar.[140]

Second, a customer contribution helps avoid stranded costs. The Commission recognized in Decision 16-01-023 that the site host takes a more active role in evaluating equipment and services and assessing site and user needs when a rebate covers only a portion of the cost.[141] If a customer pays nothing (or close to nothing) for on-site equipment, they do not have an incentive to tailor the quantity of equipment to actual and anticipated needs and may take more than is needed or prudent.[142] This problem is exacerbated if the program design includes utility ownership of the equipment, since the utility has its own financial incentive to install more, rather than less equipment, regardless of whether the equipment is used, in order to make more profit on the capital asset for shareholders.[143]

Third, a customer contribution encourages proper maintenance and efficient usage of the asset. If a customer makes a substantial contribution toward purchasing equipment, they are more likely to take care of it and optimize its use.[144]

b. PG&E's proposal to give away EVSE and services at no or minimal cost to customers that can afford to pay for it violates the state's interest in optimizing private investment.

PG&E's "settlement" proposal would include no customer contribution at all from many participants, and a nominal payment by the rest. Under PG&E's proposal, all DCFC customers, all customers within disadvantaged communities (regardless of need), and all customers at "sites owned or leased by school districts, government agencies or non-profit entities" would receive a 100 percent subsidized make ready and EVSE, services, and maintenance.[145] For customers not located in disadvantaged communities, a small participation payment of 10 or 20 percent of the base cost of the EVSE would be charged to MUDs and "private, for-profit entities."[146]

PG&E's proposal is not reasonable. As discussed elsewhere in this brief and in ChargePoint's testimony, employers and commercial site hosts throughout PG&E's service

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[140] See, e.g. 2014-15 Investment Plan Update for the ARFVTP (May 13, 2014). See also Exh. 55, p.1.
[141] Id., p.15.
[142] See Exh.62, pp.43-44 (Dr. Cicchetti discussion of net cost of inefficiencies in PG&E's program, including customer's economic incentive to right size installation and optimize usage.); See also Exh. 63 p.23.
[143] Id. p.44.
[144] Exh. 63, pp.16-23; Exh. 81, p.15.
[145] Exh.1, Settlement p.10-11.
[146] Id.

territory, and particularly in the greater Bay Area, are investing in EV charging for their employees and customers. This is reflected in thousands of charging stations being deployed at the expense of public and private site hosts, with declining dependence on government subsidies.[147] There is also good evidence that customers are willing to contribute a portion of the cost in exchange for receiving a subsidy for installing DCFC.[148] There is absolutely nothing on the record suggesting that PG&E's minimal customer contribution proposal is reasonable or prudent.

c. The Commission should adopt a simple and workable customer payment structure.

ChargePoint supports the following approach to customer payments:

Workplace, commercial, public Level 2 sites

- All customers at workplace, commercial, and other public non-residential locations except in disadvantaged communities) receive in-kind make ready facilities only. No rebate. Customer is required to pay the full cost of pre-qualified EVSE and network services that meet program requirements (customer is free to purchase additional services if desired, as long as they do not conflict with program requirements and goals). Customer must also purchase a maintenance plan that meets program standards. Rebates can be added in Phase 2 if needed to motivate increased participation.
- Workplace, commercial and other public non-residential locations that are located inside disadvantaged communities receive a rebate equal to a reasonable percentage of the average cost of basic L2 EVSE, network services, and maintenance. Customer may use the rebate to purchase any pre-qualified EVSE and services directly from providers.

MUD Level 2 sites

- MUD customers (except in disadvantaged communities) receive a 50[?] percent rebate to purchase basic EVSE, network services, and maintenance, with the conditions for rebates outlined above.
- MUD customers in disadvantaged communities receive a 100 percent rebate to purchase EVSE, network services, and maintenance, with the conditions for rebates outlined above.

DCFC sites

- All DCFC customers receive in-kind make ready facilities only. No rebate. Customer is required to pay the full cost of pre-qualified DCFC and network services that meet program requirements (customer is free to purchase additional services if desired, as long as they are consistent with program requirements and goals). Customer must also purchase a maintenance plan that meets program standards.

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[147] Exh.63, p.9;

[148] See, e.g. Tr.Vol. 3 (ChargePoint/Jones) 44:11-15.

The basis for these recommendations is discussed above and supported by the record in this proceeding.

F. LOAD MANAGEMENT, TIME OF USE RATES, PRICING TO EV DRIVERS

1. Load Management

a. All EVSE should be capable of managed charging and participation in DR programs.

PG&E recommends in all versions of its proposal that EVSE be capable of managed charging and participation in DR programs.[149] This recommendation is relatively uncontroversial, and ChargePoint has consistently supported it.[150] Regardless of how the PG&E Phase 1 program is structured, and regardless of the degree to which a site host contributes to the cost of the EVSE, all charging stations should be able to communicate with a network service provider and should meet basic VGI functionality requirements.

EVSEs available on the market today are fully capable of sophisticated grid support functions, and can be managed to meet the needs of drivers and site hosts, integrate with on-site power management systems, facilitate participation in DR programs and respond to signals from the grid operator. For example, ChargePoint's EVSE and services provide online management tools for data analysis, payment processing, load management and access control that allow station owners to manage all of their charging operations from a single dashboard.[151] ChargePoint's equipment is capable of taking and communicating price signals in real time, or changing price signals in real time.[152] Using ChargePoint's technology the site host can even remotely control the power level of the charger to respond to grid signals or program it to DR signals.[153] EVSE submetering offers additional metering and billing functions.

Given the current capabilities of EVSEs and the rapid pace of innovation in hardware and software, any utility EV infrastructure program should require EVSEs that are capable of networked service and DR functions <u>and</u> should allow the participating site host to take full and free advantage of the "smart" technology for on-site load management. Smart technology isn't beneficial to the grid unless it is used. As discussed in more detail below, this is where PG&E's

[149] See, e.g. Exh.2, pp.44-46.
[150] See, e.g. Exh.64, p.20; Exh.65, pp.10-12.
[151] Exh.63, pp.4-5.
[152] Exh.65, p.11.
[153] Exh.63, pp.4-5.

program design falls short. The PG&E Phase 1 program should support deployment of smart EVSEs and allow each site host to take advantage of all of the functionality of smart EVSE and network services – for the benefit of the site host, the driver and the grid – rather than dictating the default pass through of TOU rates and control of the EVSE by a third party "customer of record." In this respect, ChargePoint's recommendation differs significantly from what PG&E is currently proposing. The "customer of record" issue is addressed in more detail in section V.F above, and the TOU rate issue is further discussed below.

b. Every participating site host should be required to provide a load management plan reflecting best practices and the nature of the site.

The PG&E Phase 1 program should include a load management plan requirement. ChargePoint has consistently supported requiring site hosts to participate in load management efforts, which may include additional services provided by a qualified network service provider or other activities aimed at minimizing the negative impact of EV charging on the grid.[154] ChargePoint also recommends that the Commission require each site host to participate directly or through a third party aggregator in available DR programs.[155] Requiring every participating site host to provide a load management plan should be uncontroversial, since all of the parties in the proceeding appear to agree on the basic principle that load management is useful both as a means of avoiding grid impacts and contributing to the integration of renewable resources. However, there are real differences between how ChargePoint and PG&E define a load management plan requirement.

ChargePoint recommends a simple mandate that every participating site host be required to provide a load management plan. To provide clear guidance, ensure consistency, and facilitate program administration, the Commission should require that plans conform to a straightforward set of criteria or "best practices" that could be developed through a stakeholder process. These "best practices" would reflect that reality that individual load management plans may differ depending on the nature of the site and anticipated EVSE usage and availability needs. For example, a MUD's load management plan would probably address how the owner will use technology or incentives to support charging after the evening peak. A workplace's load management plan may address how the site will coordinate charging with grid signals, how it will integrate chargers with on-site system controls, or parking and usage conventions. If a site's

[154] Exh.64, p.21.
[155] Id.

load management plan conforms to best practices, it should be accepted, and the site host should have the discretion to adjust it over time as needed as long as it remains in conformance. The benefit of using this "best practices" approach to load management plans is that it would provide clear and transparent guidance, and minimize the likelihood of disputes over the utility's exercise of discretion. It would also have the distinct benefit of allowing adjustment over time as "best practices" evolve and the Commission learns more about what site hosts can offer in the way of load management.

PG&E's proposal is significantly different from the above. PG&E's original (and compliant and "enhanced") proposal did not even discuss a load management plan, because PG&E apparently assumed that all chargers would be completely controlled by the third party "network operator" selected by PG&E. The site owner would not control the EVSE at all, and instead of exploiting the capability of the EVSE and managed charging to enable site-specific load management PG&E proposed that the third party "network operator" would simply be required to pass through a TOU rate to every driver.[156]

The new "settlement" version of PG&E's proposal is not much different from its original proposal with respect to load management. DCFC site hosts would not submit a load management plan because they will have no involvement at all in load management. Instead, PG&E proposes to choose a network provider, which will be required to pass through an "applicable" PG&E TOU rate.[157] The "settlement" states vaguely that PG&E at some undefined point in the future will "evaluate potential DCFC load management strategies," but does not explain what these "potential" strategies might be, or how or when they would be "evaluated."

For Level 2 sites under the "settlement", PG&E now proposes two options in place of the original proposal described above. The "default" option is simply the same as PG&E's original proposal – a third party provider will take over all control of the EVSE and network services and pass through a TOU rate signal rather than allowing the site host to adopt load management strategies using the EVSE capabilities and site-specific tactics.[158] The new alternative option (labeled "rate-to-host" option) calls for the site hosts or vendor to submit a load management plan, subject to oversight and regulation by PG&E, at its discretion.

[156] Exh.2 p.2-8.
[157] Exh.1 p.5.
[158] Exh.1, Settlement p.6.

This new option was adapted from the settlement in A.14-04-014, without any explanation or acknowledgement of the differences between SDG&E's unique VGI proposal and the entirely different proposal in this case. The "settlement" language describing what might be included in a load management plan refers to "innovative approaches" but the record makes it very clear that PG&E's concept of an acceptable load management plan means passing through a TOU rate signal, <u>not</u> discretion on pricing for the site host. As PG&E's witness puts it:

> Part of what we are trying to do is support grid management services. And we expect that if these site hosts want to participate in our program, and they want to take the rate-to-host option, we are interested in what they plan to do to communicate time-of-use pricing to their drivers at their site. And that is one of the conditions of taking advantage of this program.[159]

It is telling that the proposed PG&E "settlement" <u>omits</u> from the language borrowed from the SDG&E settlement an important note recognizing that site hosts "may want the flexibility to change prices or fees over time, as appropriate."[160] PG&E obviously has no intention of allowing site hosts any measure of freedom in pricing EV charging.[161] PG&E's attempt to cast its borrowed "load management plan" provision as a meaningful change in a flawed TOU pricing proposal fails. The Commission should adopt a real, meaningful load management plan requirement as proposed above.

2. TOU Rates to Site Hosts

ChargePoint supports requiring each site host to take service for the EV charging station load on an applicable TOU or other dynamic pricing rate. This requirement is entirely uncontroversial. The Commission long ago determined that providers of EV charging services are retail customers of the utility and should purchase service under applicable retail rates (except in the case of DA or CCA customers, which purchase generation from the ESP or

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[159] Tr.Vol.2 (PG&E/Corey) 171:11-16.

[160] See D.16-01-045, Attachment 2, p.5, fn.40.

[161] For example, as noted above, one PG&E witness very frankly admitted during hearings that the "rate-to-host" option will <u>not</u> be available unless the site host provides a plan explaining "what they plan to do to communicate time-of-use pricing to their drivers at their site." Tr.Vol.2 (PG&E/Corey) 171:11-16. The same witness made a directly contradictory statement as well. Tr.Vol.2 (PG&E/Corey) 98:13-16. Another PG&E witness indicated that how maximum demand charges and other charges will be assessed to drivers would "probably be part of the load management requirements" under the rate-to-host option Tr.Vol.5 (PG&E/Pease) 524:19-22. Thus, at best the record is perfectly unclear regarding how PG&E would exercise its discretion with respect to customers that seek case-by-case permission to vary pricing from PG&E's default model.

CCA).[162] If a site host in PG&E's Phase 1 program is currently on a non-TOU rate, ChargePoint would not oppose requiring charging stations at host sites to be on a separate applicable TOU, EV-TOU or dynamic pricing rate with the site host being the customer of record.

However, as the Commission explicitly recognized in discussing this issue five years ago in Decision 10-07-044 (the original Phase 1 rulemaking decision), there is a difference between the rate the site host pays to the utility and what the site host may charge (or waive) in billing the driver:

> The Commission's rate design authority may be a tool to address how electric vehicles impact the electric grid and can help to integrate renewable energy resources. <u>The rate that an electric vehicle charging provider pays to the utility will be a cost of doing business that the charging provider may pass on to its customers or absorb.</u> The charging provider will have a strong incentive to operate its business in a manner that is compatible with the needs of the electric grid.[163]

There is no issue in this case regarding the site host paying a TOU rate, as long as the site host has the freedom recognized by the Commission to make its own decision whether, how and what to charge the driver for the site-specific services.

3. Pricing to EV Drivers

The approach to pricing to EV drivers is a critical issue, and an area in which there is a stark difference between PG&E's proposal and the approach supported by non-settling parties. As discussed below, ChargePoint recommends that the Commission allow site hosts to determine whether and how to charge drivers for EV charging, as long as the site host follows a reasonable load management plan. PG&E's proposal centers on a "one-size-fits-all" requirement that drivers be billed according to the applicable TOU rate schedule, without regard to the nature of the site or the needs of the site host or drivers.[164] PG&E's belated attempt to add an exception allowing some site hosts to seek discretionary approval by PG&E of alternative pricing terms does not address the fundamental problems with PG&E's flawed "default" TOU pricing proposal.

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[162] D.10-07-044, p.26-27.
[163] Id. at 27 (emphasis added)
[164] See Exh.2 p.2-8 (PG&E-selected "network operator" will "be required by contract to resell the electricity to EV drivers who use the EV Program chargers at a reasonable fee based on a time variant commercial price.").

The Commission should allow all site hosts the discretion to determine how and how much to charge drivers for EV charging. The market has seen a tremendous amount of innovation in approaches to pricing, including fees that encourage shared use and fees that include parking. If the Commission truly wants to encourage site hosts to step up and participate, hosts need to feel they can promote beneficial behavior and achieve client satisfaction. PG&E's proposal does not accommodate the flexibility hosts need.

a. The Commission should reject PG&E's TOU pricing proposal.

i. PG&E has failed to provide adequate evidence on the record to support adoption of its TOU pricing proposal.

The record contains very little information regarding PG&E's default TOU pricing proposal. PG&E's testimony and the most recent "settlement" document provide that the driver will be required to pay "an applicable time-of-use rate." PG&E's direct testimony identifies three TOU rates, A-6, A-10 and E-19, as the most likely applicable TOU rates.[165] The "settlement" defines "TOU Rate" as these PG&E TOU rates.[166] However, PG&E's witness offered contradictory statements suggesting that in CCA areas CCA rates (not the defined "TOU Rate") would apply.[167] These CCA TOU rates are not provided in the "settlement" or otherwise explained.

In response to questions by the ALJ as to how the TOU driver rate will be calculated, PG&E offered that the charge to the customer will include the volumetric rate element plus "any fixed or demand charges" that are part of the rate.[168] In response to a question by the ALJ regarding DC fast chargers, PG&E stated that the demand charge element must "reflect the actual costs" and that "15 minute demand intervals are typically applied to rates that include demand charges."[169]

Apart from this minimal showing summarized above, PG&E's testimony is completely devoid of any documentation of what the proposal will mean for drivers. PG&E's proposal provided no information regarding which customer segments would be on which TOU rates. PG&E offered no information regarding the applicable TOU periods. PG&E did not provide

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[165] Exh.2 p.7-5. See PG&E Schedule E-19, PG&E Schedule A-10, PG&E Schedule A-6.
[166] Exh. 1, Settlement p.9.
[167] Tr. Vol.2 (PG&E/Corey) 183:9-23.
[168] Joint Response by PG&E et al. to Administrative Law Judge's Ruling Directing Joint Settling Parties to Respond to Various Questions (April 12, 2016) p.2.
[169] Id.

analysis regarding how the TOU time periods relate to the times that drivers are likely to charge EVs within different customer segments (MUD, commercial, workplace, DCFC, public buildings, etc.). PG&E has not provided calculations or explained for the record what the average driver at these various locations would pay for a typical charging event, or how the TOU rates would affect drivers that are only able to access the EVSE during peak hours. PG&E acknowledges the inclusion of demand charges, but does not explain how demand charges (which are calculated monthly, retroactively) can be reflected in rates to drivers, or how demand charges and other non-volumetric charges would influence the TOU pricing signal.[170] The proposal contains no data or analysis comparing driver cost under the mandatory TOU rates to what drivers at various types of location typically pay when site hosts control pricing.

When questioned about these important details, PG&E's testimony illustrates that PG&E has not really thought out the practical implications of its proposal. For example, PG&E's witness had "no idea" of the average dwell time at a commercial site.[171] PG&E first testified that a commercial site such as Walmart would be an "appropriate location" and that PG&E "expected" there to be more charging on the off-peak hours and less charging at the on-peak hours" at commercial locations, but then changed her mind and admitted that the program would be more effective at "other locations."[172]

Remarkably, given PG&E's failure to provide the Commission any clear information regarding how the default TOU pricing scheme will translate to charges to drivers, or compare those charges to what drivers typically pay, or consider differences in driver response to TOU rates within different customer segments, PG&E proceeds to make TOU pricing the focus of its description of program benefits. For example, PG&E broadly asserts that its program will provide "<u>more reliable electrical service</u>" by using time-of-use price signals to "shift load".[173] PG&E claims that it will provide "<u>less costly electrical service</u> due to <u>improved integration of</u>

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[170] See Tr. Vol.2 (PG&E/Corey) 166:2-7 (demand charge will pass through to drivers); Tr. Vol.5 (PG&E/Pease) 522:9 through 524:8 (discussion of monthly demand charges applicable under Schedules A-10 and E-19); Id. 524:10-22 (TOU demand charge assessment not provided in settlement, but "would be for the EVSP for the TOU-to-driver option probably an agreement with the EVSP for. The TOU rate to host, it would probably be part of the load management requirements that they would need to provide to PG&E.")

[171] Tr.Vol.2 (PG&E/Corey) 70:26.

[172] Tr.Vol.2 (PG&E/Corey) 72:7 through 73:12.

[173] Exh.1 p.3.

renewable generation that will result from using time-of-use rates….”[174] And PG&E claims that TOU rates will provide drivers “the opportunity to realize fuel savings relative to gasoline.”

None of these purported benefits are supported by the record. In fact, the record suggests just the opposite.

ii. PG&E's TOU pricing proposal is poorly conceived and unworkable.

TOU pricing has an important place in encouraging beneficial load management in California. ChargePoint has consistently advocated and supported the expansion of TOU pricing options for EV charging customers. However PG&E's proposal to force service providers and site hosts to pass through TOU rates to drivers at all times and at every participating site in its program has serious flaws and should be rejected.

First, PG&E's foundational assumption that all charging customers at all types of charging locations can and will respond to TOU pricing is simply wrong. Drivers at residential locations, including MUDs, will charge at home and would likely respond to TOU pricing signals. But this is not the case in other customer segments.

A driver visiting a government building or commercial business will need access to EV charging at the time they arrive at the charger. A driver at city hall or a grocery store obviously will not wait for hours until the TOU period changes to use a Level 2 charging station. The situation at DCFC sites is similar, since a primary purpose of expanded deployment of DCFC is to address the EV charging needs of drivers who are travelling longer distances, or who need a fast charge for other reasons.[175] For all of these drivers there will be no useful “testing” of TOU response. The higher peak TOU price will simply be the cost of charging. If the driver is charging at a public location where the site host otherwise would have offered some period of charging for free or at a reduced price to encourage EV use or reward patronage, that customer will pay more on the peak TOU rate than they would otherwise have paid.

The TOU tariffs that PG&E intends to use have a summer peak rate period between 12 noon and 6 pm.[176] PG&E has testified to its expectation that at workplaces the first user will

[174] Id. p.4 (emphasis added).
[175] See Exh. 65, pp.10-11; See also Exh.2, pp.1-9 to 1-10 (PG&E “targeting areas that receive a significant amount of inter-regional travel.”).
[176] See Schedule A-6 at Sheet 5, Schedule A-10 at Sheet 11, Schedule E-19 at Sheet 12.

plug in the vehicle during the morning period and the vehicle will likely be charged by noon.[177] After that, PG&E concedes that a 12-6 TOU peak rate is intended to discourage use during the remainder of the workday.[178] In other words, if workers respond to the TOU rate signal at a workplace charger the way PG&E wants them to, then workplace chargers will sit idle for a large portion of the workday. However, if another worker needs to use the EV charger during the afternoon, he or she would simply pay the peak TOU rate, since the TOU period extends until 6 pm. This presents an underutilization risk issue for ratepayers, which is the second major issue with PG&E's TOU pricing proposal.

PG&E's default proposal to impose TOU charges on all drivers without consideration of the nature of the location could result in underutilization of the facilities, particularly at high-demand workplace, commercial and public locations. Mr. Jones observed that:

> Currently, workplace owners of EV charging equipment have a strong incentive to optimize the use of the installed equipment. For example, they typically implement incentives, penalties (extra charges for stay beyond 3-4 hours) or internal communications systems to ensure that more than one EV driver employee can use the charging station per day. Likewise, a retail store will use pricing to ensure that customers do not monopolize the facility or use it as a substitute for home charging. These efforts are evolving, but the general trend is toward improving utilization rates, which benefits everyone. If someone other than the site host is setting the price for charging, the site host's ability to support optimal use is eliminated. Charging drivers based on utility time variant rates generally makes sense for residential charging, but relying exclusively on TOU price signals at commercial and workplace locations will not optimize usage.[179]

It is possible that PG&E is assuming that each one of its charging stations will be single-user, or that they will sit idle from 12-6 pm during the summer peak pricing periods at multi-user public and workplace locations. However, that would be an obvious waste of ratepayer funds and also risk sending a confusing and frustrating message to drivers.

In sum, PG&E's proposed default TOU rate proposal will create issues for drivers, for site hosts and for program administration that PG&E does not seem to have even considered. Meanwhile there is not a record supporting any of the benefits that PG&E claims will result from

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[177] Tr. Vol.3 (PG&E/Corey) 74:3-10.
[178] Id. 74:11-21.
[179] Exh.63 p.22.

its TOU rate proposal. The record does not show that the pass through TOU rates will offer drivers a greater opportunity to save money driving on electricity as opposed to gas, or that drivers will save money as compared to the alternative in which site hosts have discretion over pricing. The record does not show that there will be a meaningful driver response to TOU pass-through pricing, except at residential locations where drivers would likely be receiving a signal to charge in the off-peak in any event.

Finally, the record does not remotely support PG&E's central claim that this program will help support integration of intermittent renewables during periods of overgeneration. In fact, the record shows that PG&E's TOU pricing scheme will very likely have the opposite effect. The summer weekday peak TOU period is noon-6 pm, and the partial peak TOU period is 8:30 – noon.[180] Thus, PG&E is asking the Commission to approve a "default" TOU rate that is supposed to encourage drivers <u>not</u> to charge during the afternoon hours of 12-6, which is exactly when solar overgeneration is more likely to occur.[181]

On closer examination it becomes clear that PG&E's claims with respect to helping support renewable energy integration are entirely based on what PG&E plans to do in the future and nothing to do with this Phase 1 proceeding. For example, PG&E's witness admitted:

> Our program doesn't directly propose a load management program, per se. We are exploring the various options available through tests and pilots, and we will make a proposal in Phase 2 for a load management type program.[182]

PG&E theorizes that imposing TOU rates on drivers in this Phase 1 program will somehow aid in the evaluation of a future load management approach focused on synchronizing EV charging to coincide with overgeneration periods in a new program during Phase 2.[183] The problem with this reasoning is that to the extent that overgeneration in the late afternoon is an issue now, PG&E's plan to set up a pricing signal that will for all of Phase 1 encourage drivers <u>not</u> to charge EVs during peak TOU periods that coincide with hours when there is likely to be overgeneration is short-sighted and counterintuitive.[184]

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[180] See Electric Schedule A-10 (Medium General Demand-Metered Service) Sheet 11.
[181] Tr. Vol. 3 (PG&E/Corey) 192:20-23. See also R.15-12-012, p.14.
[182] Tr. Vol. 3 (PG&E/Corey) 194:15-20.
[183] See, e.g. Exh.1, p.4.
[184] PG&E seems to understand this fundamental contradiction. In response to questions regarding the coincidence of TOU peak periods and overgeneration, PG&E's witness vaguely speculated that the TOU periods might shift at some point in the indeterminate future. Tr. Vol. 2 (PG&E/Corey) 72:24-

iii. A pilot to "test" driver response to TOU rates is unnecessary.

Throughout this proceeding, and again in the Settlement Motion, PG&E has attempted to justify its default mandatory TOU pricing scheme as a "test" of driver response to TOU prices. PG&E argues that the Commission should adopt the TOU proposal because it will:

> Test the use of time-of-use price signals seen by EV drivers as an alternative to hourly dynamic pricing as a simpler means of providing foundational load management, upon which more sophisticated forms of load management will be evaluated during Phase 1 to identify an "Advanced EV Grid Support" program potentially to be deployed in Phase 2.[185]

The reasoning behind this argument is faulty. First, there is no need to "test" response to TOU price signals, which have been used for decades.[186] The Commission has ample evidence over a long historical period that customers do respond to TOU price signals, subject to a variety of variables, including the rate differential and whether there are external constraints affecting the customer's choice. PG&E has tried to sell its default TOU rate "test" by comparing it to the new and innovative VGI rate pilot that has been approved for SDG&E. The SDG&E program was designed around a true rate pilot. But PG&E admits that "unlike the SDG&E program, PG&E intends to use existing commercial time-of-use rates instead of creating a dynamic VGI rate."[187]

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28. This does not address the flaw at the center of PG&E's TOU proposal. And, as discussed further below, it seems the Commission is going to take time to work out methodological issues before authorizing the utilities to change their non-residential TOU periods in future GRC proceedings. So for however long that takes, PG&E's TOU rate pass-through program would be sending the wrong signal to drivers.

185 Exh.1 p.5

186 R.15-12-012, p.5.

187 Joint Response by PG&E et al. to Administrative Law Judge's Ruling Directing Joint Settling Parties to Respond to Various Questions (April 12, 2016), Attachment A p.2. Oddly, PG&E goes on to say that its proposal will "test whether TOU rates can provide basic load management for EV charging, upon which more active advanced EV grid support services can be layered, or if dynamic price-based load management like SDG&E's VGI rate is necessary." Id. This statement reveals the fundamental flaw in PG&E's TOU pricing scheme. It is not "testing" anything. The Commission already knows that TOU rates can provide "basic load management for EV charging." The Commission already knows that "advanced EV grid support services" are available on the market and in development, and is testing them by allowing procurement and use of smart EVSE and managed charging in the SDG&E and SCE programs, and by supporting various EPIC program pilots. And the Commission will determine whether the SDG&E VGI rate is useful by reviewing the results of SDG&E's program, which has nothing to do with PG&E's TOU proposal.

PG&E's representation that it will test TOU price signals "as a simpler means of providing foundational load management" is basically an admission that TOU pricing is a rough tool to influence customer behavior as compared to "more sophisticated forms of load management" that will not be used in this Phase 1 program and instead will be "evaluated" during Phase 1 to identify an "advanced" program that "potentially" could be deployed in the future. What are the "more sophisticated forms of load management"? These are the functions that are available to site hosts today through use of smart EVSE and networked charging services that are available on the market now and that will be improved and expanded throughout the years of the PG&E Phase 1 program. In other words, instead of letting all site hosts take advantage of all of the available capabilities of smart charging technology during Phase 1 (e.g. timing EV charging sessions to coordinate with grid signals or providing other forms of load management), PG&E wants to "test" outdated TOU rates in this Phase 1 program and "evaluate" the alternatives for implementation at some later date. That does not make any sense.

ChargePoint has no objection to discussing the collaborative development of a pilot project or a proposal for Phase 2 that explores ways to creatively use technology and TOU rate structures or DR signals. But in the meantime, it is a waste of time and a waste of ratepayer money to implement a Phase 1 program design that replaces site host control over pricing using load management capabilities of the EVSE with a flat TOU rate pass through.

iv. PG&E's TOU pricing proposal is untimely since the Commission is in the process of reconsidering and restructuring TOU pricing mechanisms in California.

PG&E's TOU pricing proposal has been overtaken by more recent regulatory initiatives. On December 17, 2015 the Commission opened a new rulemaking proceeding (R.15-12-012) to "address a framework for designing, implementing, and modifying time periods for use in future TOU rates."[188]

In a recent Scoping Memo and Ruling, the Assigned Commissioner and ALJ explained that this new rulemaking will not set new TOU periods, but will rather "establish a methodology for setting TOU periods in the future, including identifying appropriate data sources and principles."[189] The Commission has recognized that creating this methodology will involve

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[188] R.15-12-012, Scoping Memo and Ruling of Assigned Commissioner and Assigned Administrative Law Judge (May 3, 2016) p.1.
[189] Id. pp.1-2.

consideration of complex issues, including data requirements, competing analytical approaches, the perspective of CAISO and needs of the grid, cost allocation and customer acceptance, forecasting, and changing load shapes due to renewable generation.[190] These and other factors will be analyzed in the forthcoming phase of the rulemaking, which anticipates a decision on methodology in September 2016.[191] Then the actual implementation of the Commission's new methodology and the development of new TOU rates will only take place upon implementation of each utility's individual rate proceeding.[192]

The timing of PG&E's proposal is wrong. The Commission should not authorize PG&E's proposed "default" EV TOU rate pass through requirement at the same time that it is reconsidering TOU rates and rate structures in multiple proceedings.

v. PG&E's TOU pricing proposal is inconsistent with statutory and regulatory provisions barring price regulation of EV charging services in California.

Under California law non-utility providers of EV charging services are not regulated by this Commission as utilities. The Commission established this in Decision 10-07-044, concluding that the California Legislature did not intend for the Commission to regulate providers of EV charging services as public utilities.[193] The California Legislature subsequently codified the Commission's conclusion by adopting AB 631, which expressly exempted non-utility EV charging providers from the definition of "public utility" in section 216(h) of the California Public Utilities Code. Non-utility companies providing EV charging services are not utilities and thus are not subject to the type of rate regulation that is applicable to regulated utilities.

Providers of EV charging service purchase electricity at retail from regulated utilities, but they are under no legal or regulatory obligation to "pass through" the utility rate. As the Commission noted in D.10-07-044, the cost of electricity is a "cost of doing business" to the EV charging provider, which it may pass on to its customers or absorb.[194] Many providers do choose to absorb all or part of the cost and offer some free or lower cost charging. Others pass the cost

[190] Id. pp.2-9.
[191] Id. p.17.
[192] Id. pp.9-10. Other experimental rate pilots are being considered in Rulemaking 13-12-011 (water-energy nexus proceeding).
[193] D.10-07-044, Conclusion of Law 4.
[194] Id. p.27.

of electricity through. And others include both the cost of electricity and other costs of doing business such as the cost of parking.[195]

PG&E's default TOU rate requirement runs contrary to this foundational construct. By forcing participants to accept the obligation to pass through TOU rates as a quid pro quo for participation in the EV infrastructure program, PG&E is essentially proposing to regulate EV pricing through economic coercion. Eligible site hosts would have the right not to participate in order to avoid PG&E's TOU pricing scheme, but they would suffer a consequence – ineligibility for ratepayer-funded subsidized infrastructure. That is not consistent with the letter and spirit of Decision 10-07-044 and AB 631, and it is not good public policy.

b. The Commission should allow every site host to set prices for EV charging, subject to compliance with its load management plan.

The alternative to PG&E's proposal is simple and straightforward. The site host should be free to decide whether, how and how much or whether to charge for EV charging services. Allowing freedom of pricing for site hosts makes sense for the host, the driver, and is good public policy. ChargePoint's witness Michael Jones explains it this way:

> When site hosts have control of the EV charging facilities at a workplace, commercial or MUD site, they can align pricing to reflect the nature and needs of drivers that use the EV charger. Site hosts that operate multiple sites also have the ability to have consistent charging policies across multiple service territories. For example, global property management companies, retailers with hundreds of sites around the country or workplaces with more than one location can achieve customer-centric scalability. Forcing the site host to permanently forfeit the right to have any input into pricing (as well as forfeiting control of the parking space the charger is attached to) will likely have a negative impact on participation.[196]

Site host needs and priorities differ according to location and customer segment. Allowing site hosts the freedom to adjust pricing and use smart technology to manage charging and adjust pricing within the session creates a good experience for driver and host, and enables efficient use of the charging station:

> Site hosts approach pricing in different ways. For example, a workplace customer may want to provide free charging for employees as a benefit, but charge a small per kWh fee to guests.

[195] Exh. 63, pp. 20-21.
[196] Exh.63, pp.20-21.

> A retailer may seek to provide free charging session for an amount of time commensurate with the dwell time most likely to ensure optimal shopping time at its store. After that initial dwell time, the retailer may seek to charge a fee in order to encourage the customer to move their vehicle once they've finished shopping. Multifamily housing may seek to establish attractive pricing for tenants to encourage occupancy, but a different rate for guests. Another challenge for multifamily housing is that due to turnover in residents, the balance of tenant charging versus guest or public charging may need to shift over time, thus requiring that the host not be locked into certain pricing schemes for long periods of time.[197]

Providing all site hosts discretion in pricing does not mean that the Commission will not have information about pricing in order to learn about market practices, customer preferences, and driver experience. The Commission can gather data on how various sites charge their employees, tenants and customers for charging. Data collection is a reasonable requirement for participation in the program and will provide insight for future program development.

4. Other Load Management related proposals

a. PG&E's proposal to "leverage" existing and future load management pilots and programs is vague and unbounded.

The "settlement" version of PG&E's proposal appears to seek the Commission's open-ended authorization for PG&E to "leverage" load management pilots and programs, at its own discretion and without regard to the status of the pilots or programs. This proposal needs to be reconsidered and revised. Here is PG&E's proposal, in its entirety:

> PG&E will aim to leverage existing or planned load management pilots and programs, such as the Electric Power Research Institute's "Open Vehicle Grid Integration Platform" and the PG&E/BMW "iChargeForward" pilot.[198]

As a participant in past and current pilot programs, ChargePoint strongly supports the use of pilots to test new approaches to managing load and optimizing the use of smart technology for the benefit of the grid. The findings of pilots should be studied and discussed and leveraged as appropriate. If that is what PG&E is proposing there is no issue. But PG&E's "settlement" language and its references seems to suggest a more unbounded approach.

[197] Id. p.21.
[198] Exh.1, Settlement p.10

First, PG&E's language does not mention any process or any other party. It just says that PG&E will aim to leverage pilots and programs. PG&E should not be authorized to act alone. PG&E should only approach leveraging pilots through an open stakeholder process, and with Commission authorization if needed.

Second, PG&E states that it aims to leverage "existing or planned load management pilots and programs." At the risk of stating the obvious, PG&E should not be authorized to "leverage" an "existing or planned" pilot into the Phase 1 program until after the pilot is complete and has produced usable data and findings. There are numerous, sometimes overlapping and competing studies and pilots "existing or planned." It would not make sense to authorize utilities to arbitrarily "leverage" any pilot or program at will, irrespective of its findings, its merits or its status.

The EPRI "Open Vehicle Grid Integration Platform" ("OVGIP") is a case in point. Honda Inc. and General Motors, LLC have recommended that the Commission require that OVGIP, which is has been developed by certain utilities and car companies, be "recognized as an allowable communications system" for vendors participating in the PG&E Phase 1 program.[199] However, the Honda/GM testimony admits that this project is still in the process of "software development" and will not begin implementing use cases until mid-2016. The developers have received a CEC grant for a two year pilot that will not be complete until 2018.[200] It would be premature and inappropriate for PG&E to seek Commission permission to "leverage" OVGIP until that pilot is complete and findings have been provided for public review and discussion.

It is particularly important in discussing proposals to "leverage" particular VGI platforms, standards or interoperability solutions to proceed cautiously and on the basis of a complete record. At this early point in the process of global development of standards and communication platforms for EV charging, choosing one approach or platform could have unintended and counterproductive consequences. The Commission clearly understands this, in that it has determined in the EV Rulemaking that leveraging of pilot project results, demand

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[199] Exh. 161, p.2.

[200] See California Energy Commission, *Notice of Proposed Award (NOPA) Driving the Integration of Electric Vehicles to Maximize Benefits to the Grid*, PON-14-310 (March 16, 2015), available at http://www.energy.ca.gov/contracts/PON-14-310_NOPA.pdf. , as subsequently amended on October 1, 2015 (http://www.energy.ca.gov/contracts/PON-14-310_NOPA_Amended.pdf).

charges, and interoperability and communication standards that affect controlled charging will be dealt with in the Rulemaking rather than on an ad hoc basis.[201]

b. The Commission should authorize PG&E to leverage the findings of relevant load management pilots at the appropriate time, and through an established stakeholder process.

For the reasons discussed above, the Commission should not authorize PG&E to unilaterally leverage "existing or planned" pilots or programs at will. However, it would be appropriate for the Commission to authorize PG&E to propose leveraging the findings of load management pilots or programs, provided they meet foundational requirements and are consistent with the objectives of the Phase 1 program.

The approach described in Decision 16-01-023 appears to be a good model. Recognizing that SCE had pending results in its Workplace Charging Pilot and PEV Smart Charging Pilot, the Commission found that leveraging the <u>findings</u> from these pilots was appropriate and could "inform Load Management and pricing strategies for the Fleet, Workplace, and Destination Center segments."[202] The Commission therefore instructed SCE to "convene the Advisory Board to determine how the <u>pilot results</u> affect the vendor and equipment qualification processes, the benchmarking of Load Management and pricing strategies, and the provision of Advisory Services.[203] ChargePoint recommends that for purposes of the PG&E Phase 1 program the Commission address leveraging the findings of pilots, to the extent that they are demonstrated to be relevant and only after they are completed, in a manner similar to the approach it took in Decision 16-01-023.

c. PG&E should not be authorized to unilaterally "create" an "Advanced EV Grid Support" program.

The "settlement" version of PG&E's proposal states that:

> PG&E agrees to create or have identified and adopted an "Advanced EV Grid Support" program, at the end of Phase 1 subject to any necessary regulatory approvals including cost recovery. The Advanced EV Grid Support program, once available, will be implemented as necessary to further the clean air, climate change and load management objectives identified in Guiding Principles 1 and 6, and the load management and

[201] Order Instituting Rulemaking to Consider Alternative-Fueled Vehicle Programs, Tariffs, and Policies (R.13-11-007), Amended Scoping Memo and Ruling of the Assigned Commissioner and Administrative Law Judge, p.17.
[202] D.16-01-023 p.36.
[203] Id.

> renewable energy benefits described in testimony (PG&E Opening Testimony, p.1-12, 1. 6-10; PG&E Supplemental Testimony page 3, 1.25-30).[204]

It is laudable that PG&E is interested in working on "advanced EV grid support" during Phase 1. Indeed, as discussed elsewhere in this brief, PG&E does not even need to wait to implement "advanced EV grid support" if its program provides site hosts the flexibility to select and fully make use of smart EVSE and managed charging services available today.

However the Commission should not adopt the provision of the "settlement" proposal described above, because PG&E has not bothered to explain what the "Advanced EV Grid Support" program is, how it relates to the Phase 1 program, or the process through which the program would be "created or identified and adopted." There are many interrelated policy discussions, pilots and initiatives underway at this Commission, the CEC, CAISO and elsewhere to develop mechanisms, infrastructure, rules, programs and standards for advanced EV grid support. The Commission recently clarified in the Amended Scoping Memo and Ruling of the Assigned Commissioner and Administrative Law Judge in the AFV Rulemaking proceeding that:

> …broad policy considerations for VGI should be addressed in a manner that is consistent across utility territories. Providing this certainty can allow drivers, automakers and equipment manufacturers, third-party aggregators, and other market participants to make decisions to develop and/or adopt vehicles and charging infrastructure efficiently. Issues including potential valuation and assessment, the definition of PEV resources among other Distributed Energy Resource initiatives, coordination of state and federal research investments, leveraging of pilot project results, demand charges, and interoperability and communication standards that affect controlled charging (V1G) and vehicle-to-grid (V2G) capabilities will be considered in the Rulemaking.[205]

It is not consistent with the above or a good use of resources for the Commission to authorize PG&E to "create or have identified and adopted" an undefined and unexplained program "at the end of Phase 1" on the basis of this two-sentence description provided in the "settlement". PG&E should be encouraged and supported if it intends to engage in collaborative

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[204] Exh.1, Settlement p.10

[205] Order Instituting Rulemaking to Consider Alternative-Fueled Vehicle Programs, Tariffs, and Policies (R.13-11-007), Amended Scoping Memo and Ruling of the Assigned Commissioner and Administrative Law Judge, p.17.

efforts that include stakeholders and regulators, but that does not seem to be what is contemplated here.

G. MARKET SEGMENTS

1. The structure of PG&E's Phase 1 program should reflect the unique needs and attributes of PG&E's Northern and Central California service area.

PG&E currently proposes to include the full range of EV charging market segments except for single-family residential locations in its Phase 1 Program.[206] This means that PG&E's program will include large commercial, small commercial, industrial, public institutions, college campuses, parking lots, MUDs and workplaces. PG&E's current proposal includes a commitment to 20 percent of deployment sites for Level 2 deployment at MUDs and an obligation to site 15 percent of L2 stations in disadvantaged communities (discussed in Section H below).[207] Otherwise, PG&E apparently plans to market its plan to all eligible customer segments. In fact, from the evidence on the record it appears that PG&E is planning to start with the large corporate customers that have existing relationships with PG&E account representatives.[208] ChargePoint encourages the Commission to take a large step beyond PG&E's proposal, and focus PG&E's Phase 1 program primarily (but not exclusively) on the underserved MUD and disadvantaged community customer segments. A more tailored program makes sense.

First, a focused program is the right approach at this time in Northern and Central California because of the state of the market. PG&E's service area contains the most rapidly growing market with the highest adoption for EVs and EV charging companies in the entire United States.[209] ChargePoint has observed strong and sustained interest in EV charging among employers, commercial businesses and local government in PG&E's service territory. Companies are investing their own money in order to put EV charging on site.[210] Studies show that site hosts invest in EV charging for a variety of reasons, including attracting retail

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[206] Exh.1, Settlement p.9.
[207] Exh.1, Settlement pp.9, 12.
[208] Tr. Vol.3 258:11-20.
[209] Exh.63, p.3.
[210] Exh. 63, pp.9-10.

customers, employee engagement and retention, marketing and brand-strengthening opportunities, and longer term opportunities such as V2B and V2G power services.[211]

In contrast, the MUD customer sector is lagging. In ChargePoint's experience this is due in part to the often higher cost of the utility-side facilities and retrofitting existing buildings.[212] The experts who have studied MUDs have similarly concluded that the "primary barrier to EV charging installations at MUDs is the cost of the installation and the ability to recover those costs from tenants.[213] Some home owner associations and building managers resist paying high up front installation costs attributed to the building's electrical infrastructure or parking space location.[214]

Second, focusing on filling market gaps is cost effective and a means of mitigating anticompetitive impacts. Dr. Cicchetti points out ratepayers would pay less and accomplish more for each dollar spent supporting public interest programs if the Commission adopts a utility program of partial financial support rather than allowing the utility to ignore opportunities for participant contribution. Infrastructure coupled with targeted rebates (e.g. for disadvantaged customers) is cost effective.[215] Other experts agree that focusing where there is need is beneficial. For example, former Commissioner Nancy Ryan (with her E3 colleague Lucy McKenzie) has recommended that regulators need to "assess both the scale and scope of utilities' role in the EV charging market" and "think in terms of a partnership approach to charging infrastructure, with differentiated and mutually supportive roles for utilities, charging providers,

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[211] Exh. 63, p.10, citing Center for Climate and Energy Solutions, "Business Models for Financially Sustainable EV Charging Networks" 2015. The US Dept. of Energy also has noted an increase in workplace deployment. Exh.63, p.11.
[212] Exh. 63, p.11.
[213] Id., citing UCLA, Luskin Center for Innovation, *Addressing Challenges to Electric Vehicle Charging in Multifamily Residential Buildings* (2011) p.44.
[214] Id.
[215] Exh.62, p.42. Dr. Cicchetti adds that "[m]arkets that support hosts' ownership and financial contribution encourage innovation, alternative terms and pricing, and efficient risk-taking. Thus a more cost-effective program will also avoid the potential utility market power and anti-competitive concerns."

automakers and others."[216] To this end, relevant models include the make ready approach and limiting ratepayer-backed investments to "filling gaps not adequately served by third parties."[217]

In the PG&E service area the Commission has a unique opportunity to structure an EV charging infrastructure plan that preserves incentives for private investment in strong market segments while providing focused utility attention and resources to those that are less robust, successful and self-sustaining.

2. PG&E's Phase 1 program should focus primarily on deploying Level 2 EVSE at MUDs and in disadvantaged communities.

ChargePoint supports revising the Phase 1 PG&E proposal to increase the MUD commitment to 50 percent of the Level 2 charging station deployment. As PG&E has already agreed to a 50 percent "non-binding target" this is a relatively minor change, albeit an important one. With a firm objective and obligation to focus at least half of L2 program deployment on the MUD sector PG&E will have a clear and focused primary objective in sight for this program. This 50 percent should be the floor, not the ceiling. And the MUD program should be consistent with other recommended program adjustments, i.e. providing make ready and allowing site hosts discretion as to pricing, subject to a load management plan consistent with best practices. PG&E has vaguely indicated an intent to deploy DC fast chargers at or near MUDs. In the absence of adequate evidence on the record supporting this suggestion, PG&E should not be authorized to site DCFC at MUDs.[218]

Installation of EV infrastructure at MUDs should be a priority for PG&E. As discussed above, the MUD sector is lagging in PG&E's service territory for a variety of reasons. And there is widespread agreement that home charging is the foundation to enabling widespread transportation electrification. The Greenlining Institute cites research by the National Research Council of the National Academies of Sciences concluding that "[a]ccess to home charging, in particular, is seen as a 'virtual necessity' to the acceleration of the PEV market."[219] NRDC cites the same study, which prioritizes home charging above workplace charging for all classes of

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[216] Ryan & McKenzie, "Utilities' Role in Transport Electrification: Promoting Competition, Balancing Risks", Public Utilities Fortnightly (March 2016), p. 35. In all models Ryan & McKenzie recommend that "a key objective should be to ensure that ratepayer funds supplement and leverage other sources of funding, and do not simply crowd out private sector investment." Id.
[217] Id.
[218] See Tr.Vol.2 (PGE/Corey) 242:15-243:13.
[219] Exh. 121, pp.13-14.

PEVs.[220] And ORA points to findings from the EV Project suggesting that "away-from-home (including workplace) charging may not be as crucial as at-home charging as a charging resource.[221]

The Commission should also instruct PG&E to focus on deploying EVSE both at MUDs and other locations within disadvantaged communities. As discussed below, ChargePoint supports adopting PG&E's target within disadvantaged communities and modifying the definition of "disadvantaged community" offered in the "settlement" version of PG&E's proposal so that this target actually has a meaningful impact on low-income and under-represented communities.

3. PG&E's Phase 1 program should provide only make ready infrastructure at workplace, commercial and other public sites.

Assuming the Commission adopts a meaningful 50 percent program focus on MUD sites, ChargePoint would not be opposed to allowing PG&E to also include other customer segments in the Phase 1 program. However, since there is already a significant amount of private and public funds available in these segments, PG&E's program should offer only make ready infrastructure to customers in these customer segments. At least for Phase 1, all workplace, commercial and other public sites should be required to pay for EVSE and O&M to meet basic program requirements as a condition of receiving the subsidized make ready upgrade.

This is a sensible, balanced approach for this customer sector. It preserves the incentives for private investment and allows the Commission to test whether site hosts are willing to provide a matching investment. It directly addresses the issues of unfair utility advantage and anticompetitive impacts discussed in Section V.B above. It creates a scalable platform for future program development. The Commission can consider customer response to the offer of the make ready subsidy (which the Commission recognized covers at least half of the total deployment cost in the SCE program), and add and adjust targeted rebates as needed, either in program adjustments to Phase 1 or in the Phase 2 program.

ChargePoint expects a strong consumer response to this approach (assuming the Commission makes the other program design adjustments discussed in this brief) and it will enable the expansion of EV charging in the workplace, commercial and public customer

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[220] Exh. 101, p.10.
[221] Exh. 21, p.5-7.

segments more quickly, at less cost to ratepayers, and with less impact on competition, than the PG&E proposal.

4. PG&E's Phase 1 program may include up to 10 DCFC, subject to conditions.

ChargePoint's opening testimony recommended that the Commission not authorize any deployment of DCFC in Phase 1. The reasoning behind this recommendation was that there are multiple DCFC programs currently underway that are supported by other public agencies, and that will deploy DCFC in PG&E's territory during the two-year Phase 1 program period. ChargePoint suggested that PG&E instead focus on addressing the obstacle that demand charges currently pose to the widespread expansion of DCFC.[222] PG&E responded that demand charge reform was "unnecessary."[223] ChargePoint continues to believe that the Commission needs to look carefully at how to design EV rates to avoid disincentives to deployment of DCFC. Since PG&E seems uninterested in pursuing this, the Commission should take appropriate steps to initiate this process as soon as possible. Specifically, the Commission should either order PG&E to develop a pilot volumetric rate for DCFC customers concurrent with implementation of this proceeding or at least initiate a process through which such a pilot rate can be developed and tested as soon as possible.

As for DCFC in Phase 1, ChargePoint does not oppose authorizing PG&E to deploy up to 10 DCFC. This number is consistent with the Scoping Memo and Ruling instructing PG&E to reduce the size of its program by 10 percent for Phase 1.

If the Commission authorizes DCFC in Phase 1, ChargePoint encourages the Commission to adopt program modifications to correct the flaws in PG&E's program. First, the Commission should not authorize PG&E to own and operate the DCFC. This has not been justified and seems to be the main contributor to the very inflated cost per DCFC in PG&E's proposal. The Commission should also allow DCFC site hosts choice in equipment and network services from a pre-qualified list of providers, and allow site hosts discretion in use and pricing, subject to a load management plan. DCFC site hosts should pay for EVSE, network services and maintenance. If there is insufficient interest to attract this level of customer contribution, the Commission can add a rebate in Phase 2.

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[222] Exh. 63, p.27-28.
[223] Exh. 4, p.31.

H. DISADVANTAGED COMMUNITIES

1. PG&E's proposed definition of "disadvantaged communities" is flawed.

PG&E proposes that at least 15 percent of charging station deployment be located in in the top quartile of disadvantaged communities identified by CalEnviroScreen 2.0 on a PG&E service territory basis.[224] PG&E also proposes pursuing an additional 5 percent stretch goal that can be met with a combination of the same areas that qualify for the 15 percent minimum requirement and areas identified in the settlement that have a high concentration of customers eligible for PG&E's CARE program.[225] PG&E is extremely vague as to how it will implement this proposal. Instead, PG&E simply says it will "work with the Program Advisory Council" to identify priority areas for focus.[226]

Despite the vague nature of PG&E's proposed outreach to disadvantaged communities, it is clear that the proposal is problematic because three factors have been combined by PG&E without clear definition and forethought. First, PG&E proposes to meet its target within very broadly defined geographic areas that include not only disadvantages areas, but also many prosperous and high income communities.[227] Second, even though the mapping tools PG&E is using were designed to focus on residential communities, PG&E proposes to meet its 15% target by installing EV Chargers within these broadly defined areas not just for disadvantaged multi-unit dwellings or disadvantaged businesses, but also for any workplace or commercial establishment. [228] If a Fortune 500 company happens to be located in an area identified by PG&E as a "disadvantaged community," installation at this company site would count toward PG&E's 15% target. Third, PG&E proposes to waive participation fees for installations within areas defined by PG&E as a disadvantaged community, such that installation of EV chargers for the Fortune 500 company would both meet PG&E's 15% goal and do so without any financial contribution by the company.[229]

PG&E's testimony addresses this problem in a contradictory manner. On the one hand, PG&E admits that facilities such as the Google campus would be located in an area defined by PG&E as a disadvantaged community, and would count toward the target for disadvantaged

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224 Exh. 1, p.5.
225 Id.
226 Id.
227 See Tr. Vol.2 (PG&E/Corey, Greenlining/Espino) 24:19 through 27:7.
228 Tr. Vol.2 (PG&E/Corey) 29:8-15.
229 Tr. Vol.2 (Greenlining/Espino) 26:9-15.

communities and be eligible for installation of EV chargers without cost to the site host.[230] On the other hand, PG&E claims that it is not its intent to install free chargers at Google, but since PG&E has not yet developed or provided its siting strategy and criteria, PG&E was not prepared to explain on the record how it will exclude facilities such as Google from qualifying as disadvantaged sites.[231] PG&E similarly could not say whether or not its car sharing program would require income-based eligibility requirements to ensure benefits to low-income persons rather than SoMa tech workers.[232]

PG&E has not shown that truly disadvantaged ratepayers or truly disadvantaged sites will be equitably served by its program. PG&E's Phase 1 program should include more ambitious goals and criteria for serving disadvantaged communities.

2. PG&E's Program should include more ambitious goals for serving disadvantaged communities.

ChargePoint generally supports including targeted goals for deploying EVSE in locations within disadvantaged communities, and supported PG&E's original 10 percent proposal.[233] As discussed above, the record shows that PG&E's goal of installing 15% of EV chargers on sites in disadvantaged communities is unlikely to serve those who are truly disadvantaged to the extent that such installations are made for free in workplaces and commercial sites which are not disadvantaged and which can readily afford to pay for some or all of the cost of the installation. Under the terms of the "settlement," PG&E could meet this goal by installing most of the EV chargers at the workplace sites of Fortune 500 companies that happen to be located in the zones designated as "disadvantaged."

ChargePoint recommends that PG&E's program focus seriously on serving truly disadvantaged ratepayers.

- CalEnviroScreen 2.0 is an acceptable starting point for identifying disadvantaged communities within PG&E's service territories. However, the Commission should establish a process through which PG&E will work with diverse representatives of ratepayers living in low income and otherwise disadvantaged communities (not just the

[230] Tr. Vol. 3 (PG&E/Corey 259:26 through 260:4).

[231] Id. 260:15-28. It should be noted that if the "settlement" were adopted, there is a question of whether PG&E would have the authority to implement siting criteria that would conflict with the terms of the "settlement." The record reflects that at least one of the settling parties was unwilling to testify regarding "amendments that could have been made" to resolve this serious flaw. Tr. Vol. 2 (NRDC/Baumhefner) 30:8-22.

[232] Tr. Vol.4 (PG&E/Almeida) 482:2-11.

[233] Exh. 64, p.22.

one that agreed to sign the "settlement") to develop additional criteria that will ensure that all sites actually belong to and/or serve low and moderate income ratepayers. This will ensure that low and moderate income ratepayers will have reasonable access to EV charging in areas where they live, and will allow PG&E to leverage its strong community ties to identify the most truly deserving locations, and

- Eliminate the proposal that DC Fast Chargers installed outside disadvantaged areas can count toward the 15% goal if they can demonstrate "co-benefits".[234] The "settlement" does not define "co-benefits" and does not explain how a DCFC located outside of a disadvantaged community could provide "co-benefits" to the community. In the absence of clear guidelines, this proposal is so vague as to invite abuse.

I. COORDINATION WITH DISTRIBUTION RESOURCE PLANS

ChargePoint generally supports including PG&E's distribution resources plan and related programs, including PG&E's DRP Integration Capacity Analysis, in establishing criteria for integrating distributed energy resources, including EVs, onto PG&E's grid at optimal locations to maximize grid benefits. To be clear -- this should *not* be the sole reference point in site selection, as there are other important factors such as leveraging customer interest and willingness to offer private investment, serving disadvantaged communities, and prioritizing MUDs as the primary customer segment. PG&E's program should other forms of distributed energy resources to minimize infrastructure costs, provide necessary grid services and maximize net benefits for all customers in compliance with Public Utilities Code section 769. In doing so, PG&E should not place limits on customers' ability to use the capabilities of EVSE and network services to manage on-site EV charging in coordination with other DER and DR, and PG&E's policies should leverage the strengths of competitive markets in DER and DR products and services.

J. EDUCATION AND OUTREACH

PG&E should engage in education and outreach as needed to promote and administer the program adopted in this proceeding. The Commission should explicitly recognize that market participants (including EV equipment and service providers, CCAs and ESPs) all have an important role to play in the success of the program and may communicate independently with customers. Providers of pre-qualified equipment and services should be allowed to assist customers in all aspects of program implementation.

[234] Exh. 1, Settlement p.12.

The Commission should ensure that all education and outreach activities conform to the guidelines established in Decision 11-07-029, which are still in effect.[235] As discussed below in Section V.N, the Commission should also add a "market neutral customer engagement" requirement to the Guiding principles.

The Commission should also not authorize PG&E to pursue costly EM&O activities that simply reengineer or duplicate tools or sources of information that are already available from other sources. PG&E's proposal seems to contain a number of such wasteful elements.[236] There are already numerous calculators available from a variety of neutral and un-self-interested sources for customers that wish to calculate costs and benefits of EV ownership and operation.[237] PG&E's only justification for spending ratepayer money duplicating these tools relates to PG&E's desire to implement its flawed "default" TOU pricing proposal.[238]

K. COORDINATION AND COLLABORATION WITH CCAs.

ChargePoint supports coordination and collaboration with CCAs.

L. MONITORING, DATA COLLECTION AND REPORTING

The "settlement" proposes that PG&E "file quarterly progress reports with the Commission, the PAC, and serve the reports on all parties to A.14-04-014 and R.13-11-007, as described in PG&E's supplemental testimony."[239] There is no indication why PG&E and the supporters of the "settlement" would want to serve quarterly reports on the PG&E program on the service list of the SDG&E proceeding (and the consolidated EV rulemaking), but we can only assume that this recommendation is an error created by PG&E's "cut and paste" strategy of lifting settlement language from the SDG&E settlement instead of negotiating a real settlement specific to this proposal.

In any event, ChargePoint supports data collection and quarterly reporting, and testified that reporting should include data on the market as a whole and data documenting the utility's treatment of interconnection requests from site hosts with projects that are not within the utility

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[235] See D.11-07-029, pp. 68-69. This decision also ordered the Energy Division to "monitor the utilities' use of education and outreach funds and to identify any examples of utility violations of the Electric Vehicle communication principles and requirements…." Id. p. 69. This monitoring should be ongoing and include policing the limits and obligations established in each utility's EV infrastructure program.

[236] See Exh. 2, pp. 5-12 through 5-14.

[237] Exh. 46.

[238] See Tr. Vol. 4 (PG&E/Almeida) 489:22 through 494:3.

[239] Exh. 1, Settlement p.14.

program.[240] ChargePoint further recommended that the Commission consult other sources of data in reviewing policy development issues, and considering options for Phase 2.[241]

M. ADVISORY COUNCIL

1. The Commission should authorize creation of a Program Advisory Council.

PG&E proposes that the Commission authorize creation of a Program Advisory Council to participate in planning and implementing the Phase 1 program.[242] ChargePoint supports the creation of a Program Advisory Council. The Council should be open to all interested stakeholders and should include representation from Energy Division and CCAs, as proposed.[243]

2. The Commission should reject PG&E's "settlement" proposal to create a new, undefined "advisory review" role for an undefined subgroup of council members.

PG&E's request for creation of a Program Advisory Council includes a separate and unprecedented proposal that a vaguely defined subgroup of Council members be authorized to "consult" with PG&E on a "confidential basis" on a broad variety of subjects related to the qualification and selection of EVSE. This proposal consists in its entirety of three sentences in the "settlement":

> PG&E's procurement of EV charging equipment and services shall be subject to advisory review by Non-Market Participant members of the Program Advisory Council.[244] …
>
> PG&E shall consult on a confidential basis with Non-Market Participant members of the PAC on the specifications, bid criteria and results of procurement of EV charging stations and related equipment from third-party EVSE suppliers. Ongoing cost details that are market-sensitive shall be reviewed only by Non-Market Participant members.[245]

The Commission should summarily reject this proposal for many reasons.

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[240] Exh.63, p.30.
[241] Id. pp.30-31.
[242] Exh.1, Settlement p.13.
[243] Id.
[244] Exh.1, Settlement p.11.
[245] Exh.1, Settlement p.13.

a. **The record does not reveal who would be included or excluded from PG&E's "Non-Market Participant" group or what they will actually do.**

PG&E's three-sentence proposal is so vaguely defined that it is impossible for parties and the Commission to consider its meaning and implications. For example, the record does not show who would or would not be part of this "Non-Market Participant" group. The new term "Non-Market Participant" is defined in the "settlement" as:

> an entity that is not engaged in the sale and ownership of EV charging equipment and services.[246]

This definition on its face says that the group would consist of all the Advisory Council members that are "not engaged in the sale and ownership of EV charging equipment and services." But PG&E's witness could not provide a clear explanation of who actually would or would not meet this definition. First, PG&E's witness referred to an undisclosed "list of likely members of the advisory committee that … don't seem to have an apparent conflict."[247] Then PG&E's witness speculated that the definition "wasn't meant to exclude" those Council members that are only engaged in the ownership of EV charging equipment "in their garage at their home…."[248] And apparently the intent is not to exclude PG&E itself, although PG&E owns EV charging equipment.[249] As to companies that do not both sell and own EVSE, non-profit organizations representing stakeholders, representatives of installers and site hosts, CCAs, municipalities, and others, EV manufacturers who sell EVSE along with the car, their eligibility or exclusion from the definition of Non-Market Participant remains unclear.[250] Apparently the Commission and parties will have to wait until PG&E's "list" is revealed in order to find out who would or would not be excluded from the Non-Market Participant group.

PG&E also has apparently not given much consideration to how its proposed Non-Market Participant group would operate. PG&E has proposed that the Council meet twice a year, but speculates that the Non-Market Participant group would be convened separately "during the

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[246] Exh.1, Settlement p.8.
[247] Tr. Vol. 2 (PG&E/Corey) 81:12-14. This "list" was not provided for the record.
[248] Tr. Vol.2 (PG&E/Corey) 82:11-15.
[249] Tr. Vol. 2 (PG&E/Corey) 82:19-20.
[250] See e.g. Tr. Vol. 2 (PG&E/Corey) (Clarification of counsel and testimony that settlement defines nonmarket participant by "sale and ownership"); Tr.Vol.3 (PG&E/Corey) 243:25-28 (PG&E testimony that charging stations installed by auto manufacturers are part of the "private market").

specific solicitations."[251] In short, the record does not reveal who will be in this group, when it will meet, or what it will do.

b. There is no data or testimony on the record justifying the "Non-Market Participant" group proposal.

PG&E has provided no justification on the record for establishing a "Non-Market Participant" subgroup. As noted above, the entire description of the activities of this new proposed group consists of three sentences in the "settlement" document. PG&E has not identified a need that the group will satisfy. PG&E has not cited any Commission order authorizing or suggesting that PG&E form this group. And PG&E has not offered any evidence on the record supporting the notion that random members of the self-selected Advisory Group should be provided market sensitive technical and financial data, take on the role of consultant to PG&E regarding EVSE specifications, and review PG&E's procurement decisions. In the absence of any justification on the record for this new Non-Market Participant group, the Commission should summarily reject this proposal.

c. PG&E should be collaborating with suppliers in developing the product and service specifications for the Phase 1 program, not trying to exclude them.

Some investor- and publicly-owned utilities in California and elsewhere have prioritized spending time and effort meeting and consulting with industry while developing EV charging equipment and service specifications, and other infrastructure program design elements. PG&E chose not to take this collaborative approach in developing its original application, and now PG&E proposes to take the further step of deliberately excluding "market participants" from any future consultation regarding EVSE and network specifications.

As discussed above, the record shows that PG&E does not have in-house expertise in EV charging technologies, and PG&E has admitted on the record that it is depending on industry to bring forward products and services. The record also shows that PG&E lacks a clear understanding of the business models of companies that it wants to participate as providers for its program. So it is puzzling and disturbing that PG&E now proposes to consult only with the Advisory Council members that do <u>not</u> have familiarity with the technology in developing the specifications for equipment and network services.

[251] Tr. Vol. 2 (PG&E/Corey) 80:3-5.

d. The Commission, not an ad hoc stakeholder group, should oversee PG&E's procurement activities.

Lastly, as a matter of law and regulatory policy it would be inappropriate for an ill-defined and unqualified subgroup of the Council to provide "advisory review" of PG&E's procurement process.[252] It is the Commission, and not an ad hoc group of stakeholders, that should be responsible for determining whether PG&E has made prudent decisions and otherwise complied with the program requirements established in the authorizing decision.

N. GUIDING PRINCIPLES

PG&E proposes to "follow the same guiding principles adopted by the Commission in the SDG&E decision, D.16-01-045."[253] The addition of this seems to be part of PG&E's litigation strategy to convince the Commission to forego independent review of PG&E's proposal on its own terms and in the context of its own service area's characteristics and needs.

In any event, ChargePoint has no objection to the SDG&E Guiding Principles, per se. These, and also the Guiding Principles in the SCE settlement, are good general guidelines. If the Commission adopts the SDG&E principles it should add the SCE principle requiring "Market Neutral Customer Engagement." This provides that communication between the utility and participating customers must be "neutral and unbiased with respect to vendors and charging stations qualified by SCE for the Program."

O. COST RECOVERY, COST ALLOCATION, MANAGEMENT AND TRANSITION MECHANISM

1. The Commission should authorize a 1-year transition period, subject to the $87.4 million budget cap.

The Scoping Memo and Ruling instructed PG&E to include a transition plan that identifies steps that will be taken to minimize market uncertainty and discontinuity during the regulatory review period.[254] The "settlement" version of PG&E's proposal proposes that if the Commission has not issued a Phase 2 decision by the end of the proposed 3 year program PG&E should be authorized to continue its program and receive funding at the average monthly cost and deployment rate of the program during the previous 12 months, less unspent funds left over

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[252] Exh.1, Settlement p.11.
[253] Exh. 1, Settlement p.4.
[254] Scoping Memo and Ruling, p.7-8.

from the budget.[255] This is very similar to PG&E's original proposal in the Supplemental Testimony.[256]

ChargePoint does not support this proposal because PG&E's proposal – even at the compliant scope supported by ChargePoint and others – is a large program, and should be reviewed before PG&E is allowed to proceed. ChargePoint does support authorization of a one-year transition period for an unlimited number of make-ready installations, as long as PG&E restricts spending to the $87.4 million dollar budget cap. Since the original compliant proposal budget was based on a much more expensive utility ownership model, there should be funds available for the transition period from the original compliant budget.

P. SAFETY

The PG&E Phase 1 program rules should include provision for safety. Safety is an important consideration in every utility infrastructure program and is in the scope of this proceeding.

VI. OTHER ISSUES

VII. CONCLUSION

For the reasons set forth above, ChargePoint recommends authorization of a Phase 1 PG&E EVSE program, as recommended in this brief.

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Respectfully submitted,

By: /s/

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[255] Exh.1, Settlement p.14.
[256] Exh.3, pp.6,12.